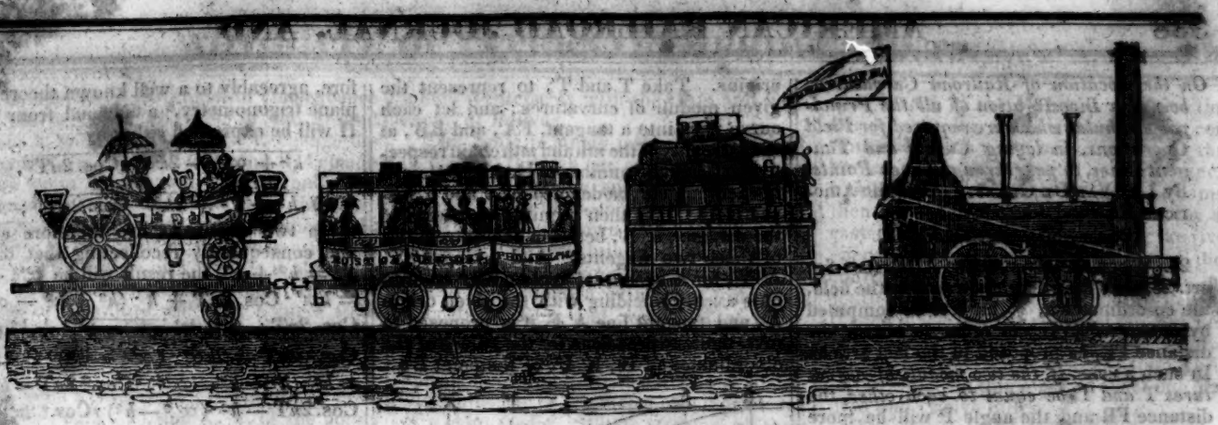

AMERICAN RAILROAD JOURNAL,
AND ADVOCATE OF INTERNAL IMPROVEMENTS.

PUBLISHED WEEKLY, AT No. 35 WALL STREET, NEW-YORK, AT THREE DOLLARS PER ANNUM, PAYABLE IN ADVANCE.

D. K. MINOR, Editor.] SATURDAY, JUNE 6, 1835. [VOLUME IV.—No. 23.

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AMERICAN RAILROAD JOURNAL.

NEW-YORK, JUNE 6, 1835.

We learn that the election of Directors to the Hudson and Berkshire Railroad Company took place on the 27th of May last, and the following gentlemen were elected:

John Delafield and Governeur Kemble, of New-York; Robbins Kellogg, of W. Stockbridge, Mass.; James Mellen, Rufus Reed, Oliver Wiswall, Robt. A. Barnard, Samuel Anable, Elihu Gifford, John W. Edmonds, Ambrose L. Jordan, Silas Sprague, Wm. A. Dean.

This Board subsequently unanimously elected James Mellen their President, and J. W. Fairfield their Secretary.

Saratoga and Washington Railroad Company.—The following gentlemen were chosen directors of this company at their annual election on Monday.

Stephen Warren, Le Grand Cannon, Richard P. Hart, John P. Cushman, Thomas J. Marvin, Erastus Corning, Lewis Benedict, John Townsend, Thomas W. Olcott, Gideon M. Davison, John Delafield, John Lorimer Graham, George D. Strong, Morgan L. Smith, Knowles Taylor.

Pennsylvania Improvements. — The Lancaster Journal of last week enumerates the following works of improvement now in progress, or shortly to be undertaken, in Pennsylvania. These, when completed, will form but a part of that great system of improved communication, which that State has had the wisdom—some may say, the temerity—to adopt and carry out, at an aggregate expense of upwards of twenty-five millions of dollars. Had these works cost twice this sum, it is quite possible—such are the wants of her great and rapidly increasing population — that the next generation would have deemed it money well laid out.—[Daily Adv.]

Lancaster, Middletown and Harrisburg Railroad.—Mr. Roberts, the Principal Engineer, we understand has nearly completed the surveys of this route preparatory to placing the line under contract. Active operations, it is expected, will commence very shortly.

The Marietta Branch Railway, forming a connection with the Columbia and Philadelphia Railway, at the Depot near Columbia. The interesting Report of the Chief Engineer, Mr. Gay, upon this important connexion with the Susquehanna, at the borough of Marietta, is published in this day's paper. By this project, the inclined plane at Columbia is entirely avoided, and one of the most favorable and beautiful upon the great river will be opened for an extensive river and inland trade. There can be no doubt of the success of the undertaking.

Strasburg Branch Railroad. — This branch extends from the borough of Strasburg, Lancaster county, to the Columbia and Philadelphia Railroad, near the water station at Lemoas', extent about four miles. The whole stock has been taken, and the work, it is expected, will be put under contract without delay.

The York and Wrightsville Railroad.— The books to receive subscriptions to the stock of this company will be opened by the Commissioners, on Wednesday the 17th day of June, at the house of Mr. Thomas McGrath in York, at the United States Hotel, Philadelphia, and at the Fountain Inn, Baltimore. When this road is completed, to its junction with the Baltimore and York Railway, there will be one continuous line, connecting the city of Washington, through Baltimore, York, Wrightsville, Columbia and Lancaster, with the city of Philadelphia.

Chambersburg, Carlisle and Harrisburg Railway, called the Cumberland Valley Railway.—The whole of the Stock, in this important link in the chain of a continuous Railway from Philadelphia to Pittsburg has been taken, and we expect to have the pleasure of calling the attention of our numerous friends who honorably fulfilled their contracts upon the Columbia and Philadelphia Railway, to the time and place of the lettings, which will soon be advertised.

Wilmington and Susquehanna Railroad. —Proposals will be received at the Company's office at Wilmington, until the first day of June, for the grading of the whole line; also for the Masonry, Bridges, Culverts, &c.

[*From the Pittsburg Gazette of 25th May.*]

Improvement of the Allegheny River.— We have had the pleasure, within a few days past, of a long conference with Mr. James G. King, of New-York, President of the New-York and Erie Railroad Company, and Mr. Samuel B. Ruggles, one of the Directors, and subsequently with Mr. P. G. Stuyvesant, another Director of the same Company. From each of those gentlemen, we received the fullest and most satisfactory assurances that a large portion of the Railroad will be placed under contract this fall, and that the work will be prosecuted with the utmost energy to completion.

We were, however, particularly gratified to learn that their attention was directed to the connection with the Allegheny, at Olean, or Warren, and that they were fully aware of the importance of the improvement of that river. We had noticed, for some time past, that the attention of the New Yorkers was turning towards that route, but had no expectation of finding them so fully informed in relation to that important river, and so ardently desirous of its improvement.

Finding them exceedingly anxious that some initiatory steps should be taken, in order to devise some plan of operation, it was suggested, after consultation with several friends in Pittsburg, who take an interest in the work, that a convention of delegates from the counties interested in that improvement, should be held at Kittanning, on Thursday, the 18th of June. The object of such a convention would be to collect all the information which is at present attainable, as to the character of the river, the best mode of improving it, the probable expense, and also, to decide whether application should be made to Congress or to the Legislature, and if to the latter, whether for the work to be done by the State, or for the incorporation of a company.

We shall send a copy of this paper to the seat of justice of each county along the river, from Pittsburg to Olean, and ask that we should be immediately informed whether delegates will be appointed. We believe that now is the very time to strike in this matter. New Yorkers are at length fully awake to the importance, and indeed to the indispensableness, of this work,

On the Location of Railroad Curvatures; being an Investigation of all the Principal Formulas which are required for Field Operations, in laying Curves and Tangent Lines, to pass through Given Points. By J. S. VAN DE GRAAFF. [For the American Railroad Journal.]

[Continued from page 819, vol. iii.]

24. When the given curve ADF, (see fig. art. 23,) has been actually traced in the field, the co-ordinates x, y, have to be computed by means of (VII.) in order to obtain the distance FR, as proposed in the last article. In such a case, *if the two moduli of curvatures* T *and* T′ *be equal to each other*, the distance FR and the angle P will be more conveniently had by means of a direct formula in terms of n, m, T, and $\propto$, without first computing the values of the co-ordinates x, y, and x', y'. For when (XXIII.) is developed, agreeably to the common principles of algebra, the result is, $w = (x^2 + y^2 + x'^2 + y'^2 - 2xx' - 2yy' - 2\propto . \overline{x'-x} + \propto^2)^{\frac{1}{2}}$; and by substituting in this equation for x, y, and x', y', their values obtained from (VII.), upon the supposition that T = T′; suppressing the quantities which cancel each other, and reducing the result, agreeably to the principles of analytical trigonometry; the following formula will be then obtained:

$$w = \left\{ \frac{1-\text{Cos.}(2n\text{T}-2m\text{T})}{1-\text{Cos.}2\text{T}} - \propto \times \frac{\text{Sin.}2m\text{T}-\text{Sin.}2n\text{T}}{\text{Sin.T}} + \propto^2 \right\}^{\frac{1}{2}} \quad \text{(XXV.)}^*$$

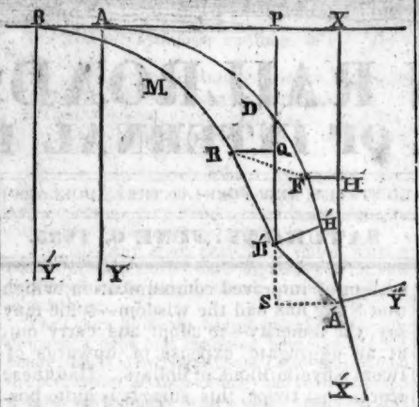
Thus, an expression for the value of w has been obtained, which will be quite convenient for use in the field, with the table of *natural* sines and cosines, and the table of the squares and square roots of numbers, subjoined to this volume. But the values of the co-ordinates x, y, and x', y', not being here computed, a new formula will be required for determining the angle P. For this purpose it will be only necessary to substitute in $\text{Cos. P} = \frac{x'-x-\propto}{w}$, the valves of x' and x, as obtained from (VII.) The following expression will be then obtained:

$$\text{Cos. P.} = \frac{\frac{\text{Sin.}2m\text{T}-\text{Sin.}2n\text{T}}{2\text{Sin.T}} - \propto}{w} \text{.(XXVI.)}$$

A formula expressing the value of Cos. P, has been here selected in preference to one for the value of Sin.P, for the obvious reason that the principal term in the numerator of (XXVI.) is had, by simply dividing by 2, one of the quantities in (XXV.), whose value will always be previously known from the computation of w. But with regard to the *sign* of sine P, it may be observed that, in the case here under consideration, Sin. P will always be *positive* when $n-m$ is *positive*; and vice versa.

If in (XXV.), it be supposed that $n = m$, the result is, $w = \propto$. That is, *the distance between the two curves, in a direction parallel to the common tangent at the origins, is always the same constant quantity* $= \propto$. See art. 11.

25. Suppose ADF to represent a given curve, and BMR another proposed curve laid upon the same tangent line AX, and let $\propto$ denote the given distance AB, between their origins. Take T and T′, to represent the given moduli of curvatures; and let each curve pass into a tangent, FA′, and RB′, at the extremity of the nth and mth chain respectively. Let the number of chains contained in each tangent be denoted by v and v' respectively. It is then required to determine the distance A′ B′, between the extremities of those two tangents. And taking A′ X′, A′ Y′, for a system of rectangular co-ordinate axes, coinciding with the given origin A′, and tangent line A′ F, it is proposed to investigate expressions for the values of the co-ordinates A′ H′, H′ B′, of the point B′.



The first thing which will be required, in the present inquiry, is the value of each of the co-ordinates AX, XA′, and BP, PB′, of the two points A′ and B′, estimated from the primitive axes AX, AY, and BX, BY′. Let those co-ordinates be represented by X, Y, and X′, Y′, respectively. The following equations will then evidently exist, $\left\{ \begin{matrix} \text{X} = x + \text{FH} \\ \text{Y} = y + \text{A'H} \end{matrix} \right.$; but by (IV.), $\angle \text{HFA}' = 2n\text{T}$, and therefore by the principles of trigonometry, $\text{FH} = v \cdot \text{Cos.}\, 2n\text{T}$, $\text{A'H} = v \cdot \text{Sin.}2n\text{T}$. The following formulas will therefore be the result:

$$\begin{matrix} \text{X} = x + v \cdot \text{Cos.}2n\text{T} \\ \text{Y} = y + v \cdot \text{Sin.}2n\text{T}. \end{matrix} \quad \text{(XXVII.)}$$

And in like manner the following similar equations may be obtained:

$$\begin{matrix} \text{X}' = x' + v' \cdot \text{Cos.}2m\text{T}' \\ \text{Y}' = y' + v' \cdot \text{Sin.}2m\text{T}'. \end{matrix} \quad \text{(XXVIII.)}$$

Now, taking W to denote the required distance A′B′, its value will obviously be expressed in the following manner:

$$\text{W} = \left\{ \overline{\text{X} + \propto - \text{Y}|^2 + \text{Y} - \text{Y}|^2} \right\}^{\frac{1}{2}} \quad \text{(XXIX.)}$$

The theorems (XXVII.) will frequently find an application in the field, as a means of investigating particular cases which will occur, where tangents are concerned; and in every case in which the line A′ B′ is required to be known, its value cannot be computed by any other method with more ease than by (XXIX.), a table of the squares and square roots of numbers being at hand.

It will sometimes happen that the point B′ is required to be the origin of a new curve, whose modulus of curvature must be found by means of data furnished from another curve *previously computed*, or actually traced, from the origin A′, and axes A′ X′, and A′ Y″; and in such a case, the co-ordinates A′ H′, H′ B′, furnish the most convenient data for computing the new curvature, which was fully explained in article 22.

Put, $\propto' = \text{A'H'}$, and $\beta' = \text{H'B'}$; and for the sake of convenient notation, take $k = \text{X} + \propto - \text{X}' = \text{S A}'$, and $h = \text{Y} - \text{Y}' = \text{S B}'$. It is obvious that, $\angle \text{S A}'\text{H}' - 2n\text{T}$, and $\angle \text{S B}'\text{H}' = 180° - 2n\text{T}$; and therefore, agreeably to a well known theorem in plane trigonometry,* a diagonal from S to H will be expressed either by

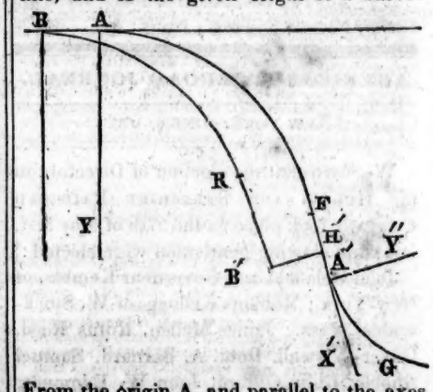
$$\overline{k^2 + \propto'^2 - 2k\propto' . \text{Cos.}\, 2n\text{T}|^{\frac{1}{2}}},$$

or by $\overline{h^2 + \beta'^2 + 2h\beta' \cdot \text{Cos.}\, 2n\text{T}|^{\frac{1}{2}}}$; these two quantities are therefore equal, and consequently recollecting that $\propto'^2 + \beta'^2 = h^2 + k^2$, the result will be $\propto'^2 - h^2 = k\propto' \cdot \text{Cos.}\, 2n\text{T} + h \cdot (h^2 + k^2 - \propto'^2)^{\frac{1}{2}} \cdot \text{Cos.}\, 2n\text{T}$; that is, $\overline{\propto'^2 - h^2}|^2 + k^2\propto'^2 \cdot \text{Cos.}^2 2n\text{T} - 2k\propto' \cdot (\propto'^2 - h^2) \cdot \text{Cos.}\, 2n\text{T} = h^2 \cdot (h^2 + k^2 - \propto'^2) \cdot \text{Cos.}^2 2n\text{T} = h^2k^2 \cdot \text{Cos.}\, 2n\text{T} - h^2 \cdot (\propto'^2 - h^2) \cdot \text{Cos.}^2 2n\text{T}$; or, $\overline{\propto'^2 - h^2}|^2 - 2k\propto' \cdot (\propto'^2 - h^2) \cdot \text{Cos.}\, 2n\text{T} = -k^2 \cdot (\propto'^2 - h^2) \cdot \text{Cos.}^2 2n\text{T} - h^2 \cdot (\propto'^2 - h^2) \cdot \text{Cos.}^2 2n\text{T}$; that is, $\propto'^2 - h^2 - 2k\propto' \cdot \text{Cos.}\, 2n\text{T} = -(h^2 + k^2) \cdot \text{Cos.}^2 2n\text{T}$; and this equation is now easily reduced, by the method of quadratics, to the form, $\propto' - k \cdot \text{Cos.}\, 2n\text{T} = h \cdot \text{Sin.}\, 2n\text{T}$. By pursuing the same method with regard to β', a similar result will be obtained; and thus the formulas which it was proposed to investigate are the following:

$$\begin{matrix} \propto' = k \cdot \text{Cos.}\, 2n\text{T} + h \cdot \text{Sin.}\, 2n\text{T} \\ \beta' = k \cdot \text{Sin.}\, 2n\text{T} - h \cdot \text{Cos}\, 2n\text{T} \end{matrix} \quad \text{(XXX.)}$$

It is easy to see that the expressions just obtained might have been deduced with more facility immediately from (XXI.); but a special investigation was considered preferable. The following case may be assumed, in order to show a practical application of (XXX.).

Example. Let AX be a given tangent line, and A the given origin of a curve.



From the origin A, and parallel to the axes AX, AY, let a system of rectangular lines be traced to a certain designated point F, selected in such a manner as to give an *integer* number of chains in the curve AF, agreeably to the method explained in art. 17; and let the values of T, n, x, and y, as deduced therefrom, be, T = 2° 3′, n = 18 chains, x = 13·40 chains, and y = 10·08 chains. From the point F suppose a tangent FA′ to be laid 9 chains, agreeably to the method explained in art. 16; and from the point A′, as a new origin, and parallel to the rectangular axes A′ X′, A′ Y″, let a second system of rectangular lines be traced, terminating in a certain designated point G, and let the resulting equations give $\left\{ \begin{matrix} x = 10 \cdot \\ y = 10 \cdot \end{matrix} \right\}$ chains, agreeably to art. 16. Now, having computed the modulus of curvature of A′ G, and examined the direction

* When $2m\text{T} > 2n\text{T}$, then $2n\text{T}-2m\text{T}$ becomes a *negative* quantity. It must, however, be remembered that *negative arcs*, which are less than 90°, have *positive cosines*. The quantity $\text{Sin.}2m\text{T}-\text{Sin.}2n\text{T}$, will be *negative* when the latter *sine* is the greatest.

The *sign* of the quantity $\propto$, is here supposed to be subject to the same *conditions* as in (XXIII.), and (XXIV.); and the same thing, in all cases, must be hereafter understood.

* This theorem is sometimes wanted in the field, and it may therefore be convenient to have it expressed here, in the usual form. Take a, and b, to denote any two sides of a plane triangle, and let X represent the *contained* angle, and x the opposite side. Then

$$x^2 = a^2 + b^2 - 2ab \cdot \text{Cos.X}.$$

at G, suppose it be found, in consequence of the particular situation of the ground from A′ to G, to be advisable to change the origin of the curve AF to a point B, 4 chains *back* upon the tangent line AX, and from thence to lay a curve BR, from the same modulus of curvature, for a distance of 15 chains to the point R; and then a tangent RB′ for a distance of 12 chains to the point B′. It is then proposed to know what modulus of curvature will trace a curve from the tangent line RB′, and from the origin B′, passing through the same designated point G.

In such a case as the present, the co-ordinates x', y', X′, Y′, and X, Y, of the points R, B′, and A′, respectively, will most generally have been already computed in making a proper selection of the points R and B′, before any calculation is wanted with regard to the modulus of curvature of the required curve from B′ to G. But to show an example in figures, of the manner of obtaining those co-ordinates, the given data at present are, $T = 2° 3'$, $n = 18$, $x = 13{\cdot}40$, $y = 10{\cdot}08$, $v = 9$, $T' = 2° 3'$, $m = 15$, and $v' = 12$. Hence, $2nT = 73° 48'$, $2mT' = 61° 30'$; and by (VII.), $x' = \frac{\text{Sin. } 61° 30'}{2\text{Sin. } 2° 3'} = \frac{\cdot 87882}{\cdot 07154} = 12{\cdot}28$, $y' = \frac{1 - \text{Cos. } 61° 30'}{2\text{Sin. } 2° 3'} = \frac{\cdot 52284}{\cdot 07154} = 7{\cdot}31$; and by (XXVII.), $X = 13{\cdot}40 + 9 \times \text{Cos. } 73° 48' = 13{\cdot}40 + 9 \times {\cdot}279 = 13{\cdot}40 + 2{\cdot}51 = 15{\cdot}91$, $Y = 10{\cdot}08 + 9 \times \text{Sin. } 73° 48' = 10{\cdot}08 + 9 \times {\cdot}960 = 10{\cdot}08 + 8{\cdot}64 = 18{\cdot}72$; and by (XXVIII.), $X' = 12{\cdot}28 + 12 \times \text{Cos. } 61° 30' = 12{\cdot}28 + 12 \times {\cdot}477 = 12{\cdot}28 + 5{\cdot}73 = 18{\cdot}01$, $Y' = 7{\cdot}31 + 12 \times \text{Sin. } 61° 30' = 7{\cdot}31 + 12 \times {\cdot}879 = 7{\cdot}31 + 10{\cdot}54 = 17{\cdot}85$. We now have $k = 15{\cdot}91 + 4{\cdot}00 - 18{\cdot}01 = 1{\cdot}90$, $h = 18{\cdot}72 - 17{\cdot}85 = 0{\cdot}87$; and by (XXX.), $\alpha' = 1{\cdot}9 \times {\cdot}279 + {\cdot}87 \times {\cdot}960 = {\cdot}53 + {\cdot}84 = 1{\cdot}37$, $\beta' = 1{\cdot}9 \times {\cdot}960 - {\cdot}87 \times {\cdot}279 = 1{\cdot}82 - {\cdot}24 = 1{\cdot}58$, which are therefore the values of the co-ordinates of the new origin B′; and thus the required modulus of curvature is readily found, by means of (XXII.), to be $= 1° 56'$.

It will sometimes be very convenient in the field, to determine by measurement the values of the co-ordinates, A′ H′, H′ B′, of the new origin B′, after the new line BRB′ has been traced up to the point B′.

[From the Journal of the Franklin Institute.]

Notice of the Sandy and Beaver and the Mahoning Canal.

Two companies have been chartered by the Legislatures of Ohio and Pennsylvania, to construct canals to connect the western termination of Pennsylvania with the Ohio and Erie canal. A charter for the Mahoning, or northern route, was first obtained; subsequently, a charter for the southern, or Sandy and Beaver, route, was granted.

The Sandy and Beaver route commences at the mouth of the Big Beaver, twenty-eight miles below Pittsburg, and continues down the north flats of the Ohio river, to Little Beaver creek; thence it occupies the valley of that stream, till it reaches the town of New-Lisbon, a short distance north of which it ascends, by a narrow ravine, to the dividing ridge between the waters of the Beaver and Sandy; after crossing which, it continues along the valley of the Sandy, and gradually descends to its mouth, near which it intersects with the Ohio and Erie canal, at Bolivar.

The route is ninety miles in extent, and is located through an extremely rich and fertile country; the summit occupies the dividing ridge between New-Lisbon and a point west of the town of Hanover, a distance of fourteen miles; it receives the drainage of eighty square miles of country, and is to be supplied with water from Cold Run, Brush Run, and west fork of Little Beaver creek, Sandy creek, Holland's creek, Mendenhall's run, and Davis' branch; in addition to which, the head waters of the Mahoning can be conducted into it by means of a short feeder. These streams, at their minimum, afford sufficient water for the transit of seventeen boats per day, and, during nine months of the year, an average flow of 2,570 cubic feet of water per minute; an amount adequate to accommodate a trade of 295 boats per day: in addition to this, it is proposed to erect reservoirs, from time to time, as the business may require. Many eligible sites for this purpose are to be found contiguous to the line, four of which have been surveyed, and found to have capacity to contain 280,000,000 cubic feet of water, and would inundate 726 acres of land.

The work is to be constructed of the same dimensions as the Pennsylvania and Ohio canals; the locks, aqueducts, and bridge abutments, are to be formed of sand-stone, and are intended to be of the most permanent character; the country through which the route is located affords materials for the construction of the work, such as stone, timber, and hydraulic lime, of the best description, and in the greatest abundance; the cost of the whole work, including reservoirs, is estimated at $1,289,000.

The Governor of Ohio, in his last annual message, mentions the Sandy and Beaver canal in the following favorable manner: "Viewing a communication between the Pennsylvania and Ohio canals to be a subject of great interest, it is with peculiar satisfaction I communicate to you the intelligence, that the Sandy and Beaver canal company was organized during the last summer, under the liberal provision of the original charter, and the munificent grant of the legislature, in an amendatory act of the last session." "By the report of two able and experienced engineers, all doubts have been removed from the public mind, as to the supply of water on the summit, and is conclusive as to the question of an abundant supply of water for all the demands of an extensive commerce." "Such a connexion has long been a desideratum to the people of the interior and southern parts of Ohio, as it will open to them a new and short route to the eastern markets for their abundant produce, and will enable eastern and western merchants to transport goods from the east at a much earlier period of the spring than by the New-York canal."

The Mahoning, or northern route, commences at the village of Akron, on the Ohio and Erie canal, and from thence extends, in an easterly direction, to the Little Cuyahoga, at Middlebury; "from which it pursues a north-easterly course, until it approaches near the main Cuyahoga, in the township of Stow; thence continuing the same general direction along the south and south-east bank of that river, until it passes the village of Franklin, it enters the valley of the Breakneck creek, and passing up that valley in an easterly course, it crosses the summit between the waters of the Cuyahoga and Mahoning branch of the Big Beaver, near the village of Ravenna. The line then descends rapidly into the valley of the west branch of the Mahoning, crosses that stream near its south-westerly bend, continues along its north bank, recrossing that branch, and also the south, or main branch, a mile above the junction of those streams; then leaving the river, the line pursues an easterly course, again approaching the river opposite the village of Warren," and then continues along the valley of the river, in a south-easterly direction, to the Big Beaver; thence it follows the valley of the Big Beaver, and connects with the Ohio at the town of Beaver. The whole distance from Akron to the Ohio, by this route, is about one hundred and twelve miles.

The canal commissioners of the state of Ohio, in their report on this route, propose to supply the summit level with water by the following means.

1st. By a feeder from Breakneck creek. This stream, they state, may be introduced by a feeder three miles and six chains in length, and is sufficient for the supply of the summit level, and the contiguous levels, in ordinary seasons, during more than half the year. In the dryest seasons, when the flow of water is reduced to the least quantity, it yields about 240 cubic feet per minute.

2d. By forming reservoirs of four lakes, or ponds, situated near the summit. These bodies of water, Muddy Pond, Sandy Pond, Brady's Lake, and Lake Pippin, may, they state, be converted into valuable and convenient reservoirs, for the supply of the summit, and the adjacent levels; the two former will contain an area of about 240 acres. Water to the depth of twenty feet, or even more, may be accumulated in these ponds, and conducted into the canal, by means of a feeder, seventy-eight chains in length. A depth of eight or ten feet of water on the area of Brady's Lake, and Lake Pippin, may be made available to supply the canal in dry seasons.

It is computed that 325,000,000 cubic feet of water may be reserved for use in these reservoirs.

It will be perceived by the foregoing description—deduced from the reports of Maj. Douglass, Col. Kearney, E. H. Gill, H. Hage, and Col. Dodge, the engineers that examined the routes—that the summit of each canal has to rely on reservoirs, during a period of drought, for a supply of water. By an examination of their respective charters, it will be found that the stockholders of the northern, or Mahoning route, are permitted to receive but ten per cent. on the cost of the work in tolls, while the Sandy and Beaver canal company are allowed twenty; in addition to which, it has received from the Legislature of Ohio the following very liberal grant, which alone, in a very few years, will much more than repay the cost of the work.

"That when the canal authorised to be constructed by the act, entitled an act to incorporate the Sandy and Beaver canal company, shall have been completed twenty miles from the Ohio canal, said company shall be entitled to collect and receive the tolls accruing on the Ohio canal, on all freight and passengers that may be transported thereon, and which have been transported not less than twenty miles on said Sandy and Beaver canal, to the Ohio canal; and to receive the toll on all freight and passengers that may be transported thereon, and discharged and landed in said Sandy and Beaver canal, at any point not less than twenty miles from the Ohio canal, for the term of seven years from and after the completion of the twenty miles of canal aforesaid."

Viewing the two routes in point of accommodation to the trade of the west and south-west, embracing the states of Kentucky, Indiana, Illinois, Missouri, and the most fertile portion of Ohio, it will be observed that, by the Sandy and Beaver route, the distance to Pittsburg, or Philadelphia, is sixty-five miles less than by the Mahoning, or northern route.

The western termination of the Sandy and Beaver canal is in 40° 36', north latitude; Pittsburg, 40° 28'; and Philadelphia, in 39° 57'. Hence, it will be perceived that the three places are nearly in a direct line. These facts portray, in the strongest light, the merits and advantages possessed by this route over any other, and that it is the most direct and desirable continuation of the Pennsylvania canal. From the western termination of the Sandy and Beaver canal, at Bolivar, the distance by the Ohio canal, Lake Erie, the New-York canal, and Hudson river, to the city of New-York, is 780 miles; and by the Sandy and Beaver route, and Pennsylvania improvements, to Philadelphia, 511; making a difference between these two communications to the sea-board, of 269 miles. In addition to this very decided advantage in distance in favor of the Pennsylvania and Ohio communication, is to be added, safety, economy, and despatch, and the long periods in spring and autumn which it could be used, when the lake route would be obstructed by ice, or hazardous, as is often the case, by storms.

The immense commerce that the Sandy and Beaver connexion will secure to our market cannot at present be approached, even by conjecture. If we view the vast extent of rapidly improving country, where cities and towns are springing up as if by magic, two-thirds of the rich products of which must seek our market through this channel, some distant idea may be formed of the benefits our present chain of internal improvements, and the city of Philadelphia, are destined to derive from this communication.

As both the northern and southern route have to receive a supply of water, during a dry period, from reservoirs, the following statement may prove interesting.

Philadelphia, Dec. 29, 1834.

Sir: In conformity with your request, I hand you the following statement, descriptive of the merits of the summit of the Sandy and Beaver canal, compared with the Licking summit of the Ohio canal; the latter, you will perceive from the annexed letter from the present acting canal commissioner of the state of Ohio, Leander Ransom, Esq., the general accuracy of which I can vouch for, from my own personal observation, has thus far been, in a measure, entirely supplied with water by a reservoir; this reservoir covers an extent of about 2,400 acres, and, when full, has a depth of six feet above the plane of the water in the canal, and is said to contain 570,000,000 cubic feet of water; it is located on a stream which, during ordinary seasons, affords a flow of fifty cubic feet per minute, but which, during the latter part of the last summer, was entirely dry. The reservoir receives the drainage of from thirty to forty square miles of country, and, during all portions of the year, it alone has to supply near thirty miles of the summit, and dependent levels, with water, and during the dry season, about forty-four miles. At the period of my visit to the reservoir, which was during the dryest part of the past season, there was a flow from it into the canal of 1,339 cubic feet per minute, which, at that time, was the only supply received by the summit, and its then dependent levels. The average number of boats then passing, was eight per day; to convey which across the summit required at least an expense of twelve locks full of water per day, equal to 112 cubic feet per minute; if to this sum is added one hundred cubic feet per minute, for leakage at the locks, (which were in a very bad condition,) there will be left for evaporation and filtration on the forty-four miles supplied from the reservoir, 1,117 cubic feet per minute, or twenty-five cubic feet per mile.

This, though I shall, in the following calculations, assume it as datum, is by far too liberal an allowance, because, from measurements and observation, made by me at the time, I found that the upper level, which is nine miles in extent, and through ground of a similar character, to the summit of the Sandy and Beaver canal, but 117 feet per minute were lost by evaporation and filtration, or thirteen cubic feet per mile per minute.

The minimum natural flow of water into the summit of the Sandy and Beaver canal, during the dryest period of the year, and measured during the past extremely dry season, is 558 cubic feet per minute, (though for nine months of the year it will average 2,570 cubic feet per minute;) the extent of line dependent on this supply is twenty miles, but seven of which, from the peculiarly favorable formation of the soil, and its wet and springy nature, can possibly require any allowance for leakage and evaporation. If, on this seven miles, an allowance for leakage and evaporation of twenty-five cubic feet per mile per minute is made, amounting in the aggregate to 175 feet per minute, there will still be left 383 cubic feet per minute for leakage at the locks, and the purposes of navigation; sufficient to accommodate a trade of thirty-eight boats per day, (the locks having a lift of six feet,) during the dry season, without any aid whatever from reservoirs.

No section of country is, perhaps, more favorably formed, in point of soil and topography, for the construction of numerous and large reservoirs, than that through which the summit of your proposed work is located; during my recent examinations there, sites for four were examined, having capacity to contain 280,649,600 cubic feet of water, and would receive, from actual survey, the drainage of forty-eight square miles of country. Assuming that seventy per cent. of the annual rain that falls, can be collected into reservoirs, which admits of no doubt, being within the limits of the result of actual experiment, and that thirty-six inches in depth of rain falls annually in your latitude, and the above described section of country will afford the reservoirs a supply of 2,810,141,720 cubic feet per annum; in addition to which, the summit drains fifty-two square miles of country, fifty per cent. of which could, if required, be laid up in other reservoirs, making, in the aggregate, 4,985,164,800 cubic feet of water, upon which no demand need be made but in the dry season, or ninety days in the year.

In drawing a comparison between the Licking summit of the Ohio canal, and that of your proposed canal, it will be observed the former has an extent of forty-four miles, which is entirely dependent on the reservoir for water during the dry season; that the natural flow of water into that reservoir is but fifty cubic feet per minute, the drainage about thirty-five square miles, and the maximum depth of the reservoir is but six feet; while the latter has an extent of but twenty miles, to meet the demands of which there is a natural flow, at the driest periods of the year, of 550 cubic feet per minute; in addition to which, numerous reservoirs may be formed as required, varying from ten to thirty feet in depth, and having a surface of eighty square miles, to supply them with water.

The very favorable result afforded by the Licking reservoir may be fully anticipated from the proposed works of a similar character on the summit of the Sandy and Beaver canal; the soil and country are alike, and their proximity to each other renders each alike subject to the effect of the same changes of climate. I cannot think any other evidence than a comparison requisite to satisfy an unbiassed mind, that the supply of water that can be obtained on your proposed canal route, is far more than adequate to meet the demands that may be made on it.

But other evidence, if requisite, can be adduced in favor of the firm reliance that can be placed in reservoirs; if we look to France, there we find the Languedoc canal, supplied in a great measure from a reservoir; if we refer to England, we find the Rochdale, the Huddersfield, the Nottingham, the Oakham, the Oxford, the Dudley, the Stourbridge, and the Grand Trunk canals, the summits of most of which are entirely supplied with water by reservoirs. In Scotland, they have been found of immense advantage. In our own country, we have, in addition to the Licking and Portage summits of the Ohio canal, which are supplied by reservoirs, the summit of the Chesapeake and Delaware canal, which is, of itself, a large reservoir, and receives but a small portion of constant running water, and the summit of the Union canal. The Schuylkill Navigation Company has, during the late dry season, received great assistance from the reservoir lately erected at the head of their works.

Very respectfully, yours,

E. H. Gill, Civil Engineer.

B. W. Bakewell, Esq.,
One of the Directors of the
Sandy and Beaver Canal.

Extract from a letter from Leander Ransom, Esq., Acting Ohio Canal Commissioner, in relation to the Licking Summit and Reservoir.

"The extent of country drained by the reservoir is between thirty and forty square miles.

"The extent of line supplied in part to the westward of the reservoir is about thirty miles in the driest part of the season; however, the water received from other sources is very inconsiderable, much depending on the duration of the drought. In the driest part of the season, nearly thirty miles to the westward, and fourteen north-east, in all forty-four miles, are supplied from the reservoir.

"The reservoir is supposed to contain, when filled to six feet above top water line of the canal, about 870,000,000 cubic feet of water, about 570,000,000 of which is available, and to cover about 2,400 acres.

"Something of an idea of the expenditure of water from the reservoir for a part of this season, may be formed from the following observations, to wit: On the 25th of June, the water in the reservoir was 4 feet 5 inches above top water line in the canal; July 13th, 4 feet 9; August 27th, 3 feet 9; September 24th, 3 feet. No rain having fallen from July 4th, to September 24th."

Mr. Ransom states that the reservoir

could have been filled much more, but it was not considered necessary; and the superintendent informed me that it could have been filled in July, had it been deemed requisite. E. H. G.

Hamilton, June 1st, 1835.

To the Editor of the Railroad Journal:

Sir: In your last number, in a letter from E. F. Johnson, Esq., I observed a misstatement in reference to the grade of the Mohawk and Hudson Railroad, which I beg leave to correct.

Mr. Johnson states that the greatest inclination between the inclined planes is 37⅗ feet per mile, for 1⅗ miles.

The greatest inclination between the above mentioned points, is 1 in 225, or nearly 23½ feet per mile, for nearly 2⅗ miles. Very respectfully,

W. J. McA.

Our correspondent W. J. McA., will find, by a reference to No. 21 of this Journal, that Mr. Johnson detected, and explained, the error referred to in the above letter.

[*From the Albany Argus.*]

Weigh Locks on the Canals.—We have been furnished with the following statement, which we publish for the information of those who are interested in the navigation of the canals.

For the purpose of testing the accuracy of the weigh locks on the canals, and their agreement with each other, an arrangement was made by the collector and weigh-master at Rochester, with Capt. T. C. Whitney, of the canal boat Richmond, to have a cargo weighed into the boat by ordinary scales, and then to have the boat and cargo weighed at the several weigh locks from Rochester to Albany.

The light weight of the boat was taken at the Rochester lock, and was found to be 43,050 lbs.—The boat was then loaded with 250 barrels of flour, which were weighed in lots of 10, 20 and 25 barrel as they were put into the boat, by the ordinary merchant's scale; and the accuracy of the weigh lock was tested when each lot was put on board. The 250 barrels weighed by the merchant's scale, 54,088 lbs.

And by the weigh lock, 53,800 "

The weigh lock making the cargo less than the ordinary scale 0, 288 "

At the Syracuse lock, the cargo weighed 54,850, being 763 pounds more than the weight of the merchant's scale.

At the Utica lock, the cargo weighed 55,100, being 1012 pounds more than the weight by the merchant's scale.

At the West Troy lock, the cargo weighed 54,250 pounds, being 162 pounds more than the weight by the merchant's scale.

At the lock at Albany, the cargo weighed 53,900 lbs., being 188 lbs. less than the weight by the merchant's scale.

After the cargo was unladen, the boat was taken into the lock at Albany and the light weight again ascertained, which was found to be 44,900 pounds, being less by 150 lbs. than the light weight as ascertained at Rochester.

The weight of boat and cargo at Albany, therefore stands thus:

Boat and cargo,	98,950 lbs.
Light weight of boat at Albany,	44,900 "
Weight of cargo,	54,050 "
Weight of cargo by merchant's scales,	54,050 "

Difference, 38 lbs. less at the Albany weigh lock.

The boat Richmond left Rochester on the morning of the 20th May, passed Syracuse on the 21st, Utica on the 22d, and West Troy on the 24th.

It is stated that the boat was wet when weighed at Syracuse and Utica. It is evident, however, from the test made in 1833, as well as the one now made, that the weigh lock at Utica will overrun about 1000 lbs. in 50 tons.—In 1833 it overran 1110 lbs. on a boat and cargo of 97,150 pounds.

The weigh locks were tested in 1833 with a cargo of 250 barrels of flour. The following shows the result of the tests in both years, comparing the weight of the cargo at each lock, with the weight as ascertained by the merchant's scales, viz:

	1833.	1835.
Rochester weigh lock	88 lbs. over.	288 lbs. less.
Syracuse do.	125 "	762 lbs. over.
Utica do.	1110 "	1012 "
West Troy do.	10 "	162 "
Albany, do.	19 lbs. less.	38 lbs. less.

If the light weight of the boat had been taken at the Utica lock, the difference at that lock would probably have been not more than three or four hundred pounds: and the same process at Syracuse would have shown a difference of perhaps 300 or 350 pounds only.

The weigh locks were in their ordinary condition, none of the weigh masters having been apprised of the approach of the test boat, until it arrived at the lock.

These experiments are very satisfactory, and must inspire confidence in those who are interested in the navigation of the canals, as to the general accuracy of the weigh locks.

The following note has been handed us by the British Consul, who will give every information that may be desired with pleasure. We have no doubt it will be useful intelligence to a numerous class of emigrants, who are hourly arriving.—[Daily Adv.]

Office of the Commissioners for the improvement of the Navigation of the St. Lawrence.

Brockville, 23d May, 1835.

Sir,—The Commissioners for the improvement of the St. Lawrence, inferring that information may be sought from you by the working class of emigrants arriving at New York, have directed me to acquaint you, that several thousand men will be required during the season, on the works of the St. Lawrence Canal.

Liberal wages will be given by the Contractors. Medical aid is provided at a trifling expense to the workmen, and every attention paid to their comfort.

I have the honor to be, Sir, your most ob't serv't,

Js. Hume, Sec'y St. L. Canal.

Js. Buchanan, Esq., British Consul, N. Y.

METEOROLOGICAL RECORD,

For January, February, and March, 1835—kept at Avoylle Ferry, Red River, Lou. (Lat. 31° 10′ N., Lon. 91° 59′ w.) by P. C. Voorhies. [Communicated for the American Railroad Journal.]

JANUARY.

Days.	Morn.	Noon.	Night.	Wind.	Weather.	Remarks.
1	42	64	62	calm	clear	all day
2	54	72	68	sw	cloudy	..
3	50	48	46	calm	..	..
4	32	48	42	N	clear	..
5	29	54	45	calm	..	heavy white frost
6	29	46	44	..	..	..
7	34	50	50	..	cloudy	rain all day and night
8	36	48	45	NE	..	all day
9	38	46	43	calm	..	..
10	37	55	56	SE	..	..
11	46	53	58	calm	..	rain all day
12	61	64	64	SE	..	rain & h'vy thunder in e.
13	48	62	68	w	clear	all day—Red river rising—wind high
14	52	64	69	sw	cloudy	rain all day
15	46	58	52	w	clear	all day
16	32	54	56	calm	..	..
17	44	66	62	sw	..	..
18	40	68	56	calm	..	..
19	33	63	54	E	..	heavy white frost
20	60	66	64	SE	cloudy	rain all day
21	54	65	58	N	..	evening clear
22	38	67	60	S	clear	white frost
23	49	65	62	calm	cloudy	rain
24	58	70	65	S	..	rain, and heavy thunder
25	62	72	67	calm	clear	all day
26	70	86	70	..	..	..
27	60	71	64	..	..	..
28	46	71	68	w	..	..
29	70	68	56	sw.high	cloudy	from 2 to 9 a. m., most vivid lightning & h'vy thunder, light showers morn'g—day cloudy—wind high all day, WNW
30	34	41	40	w.high	clear	
31	30	42	46	calm	..	all day.

Red river rose this month, 8 inches—and is below high water, 9 feet 6 inches.

FEBRUARY.

Days.	Morn.	Noon.	Night.	Wind.	Weather.	Remarks.
1	40	56	52	calm	clear	all day—Red river rising
2	49	66	65	..	..	foggy morning—clear day—rain all night
3	40	40	40	NW.high	..	all day—most extraordinary, all day equal
4	24	40	39	calm	..	all day—rain at night
5	28	45	46	..	..	a white frost—cloudy evening—rain at night
6	47	46	44	..	cloudy	and rain—clear evening—wind N. high
7	24	29	26	N to SW	clear	all day—wind high
8	12	26	27	calm	..	all day—coldest ever known in this country
9	20	40	46	..	..	all day
10	29	44	42	..	..	.. —White frost
11	28	54	48	..	..	.. ..
12	32	58	50	..	..	.. ..
13	38	66	64	sw.high	..	.. .. light
14	49	68	68	S to W	cloudy	rain at night
15	34	40	42	W to NW	..	some spits of snow
16	31	44	42	calm	clear	white frost
17	29	54	52	..	..	..
18	34	54	60	..	..	..
19	45	70	64	..	..	..
20	49	65	66	sw	cloudy	..
21	58	74	70	S. high	..	rain & h'vy thunder all n.
22	60	60	56	calm	..	.. .. all day
23	50	55	52	..	..	evening clear
24	46	59	58	..	..	morning—clear day
25	58	69	66	..	..	all day
26	50	37	36	N. high	..	rain, hail, and sleet
27	33	32	33	calm	clear	ground covered with ice
28	25	45	41	..	..	ice remains in the shade.

Red river rose this month, 1 foot 2 inches—and is below high water, 8 feet 4 inches.

MARCH.

Days.	Morn.	Noon.	Night.	Wind.	Weather.	Remarks.
1	30	50	48	calm	cloudy	white frost
2	40	50	52	..	..	light drifting showers all day
3	51	67	63	S	..	light drifting showers—rained at night
4	42	38	39	NE. high	..	light drifting showers, and rain at night
5	34	39	42	N	..	rain, snow, and sleet
6	34	48	43	calm	clear	white frost
7	40	44	44	..	cloudy	rain all day
8	43	52	50	..	..	all day
9	46	54	52	..	..	evn'g wind N to NW; clear
10	44	58	50	..	clear	wh. frost, Martin birds first appeared
11	56	61	61	..	..	great flight of wild geese this morn'g to N
12	40	66	60	slight	..	all day
13	51	70	68	S	cloudy	.. ..
14	62	76	73	S. high	..	.. ..
15	68	73	71	calm	..	.. ..
16	60	77	70	..	clear	night cloudy—sowed oats and red clover—began planting corn
17	58	58	54	NE	cloudy	rain at night
18	50	67	66	SE	..	rain in morn'g, ev'g clear
19	47	65	64	calm	clear	.. ..
20	50	71	67	SE	..	.. ..
21	68	78	65	S. high	cloudy	rain at night—a heavy gale from west all night
22	45	61	60	W. high	clear	wind high in w. all day
23	38	59	58	calm	..	white frost
24	42	65	60	S. light	..	.. ..
25	58	69	64	S	cloudy	.. ..
26	62	70	66	calm	..	heavy thunder and rain in morning—day clear
27	45	74	70	..	clear	all day
28	48	80	66	S	..	.. ..
29	50	76	72	calm	..	.. ..
30	54	78	76	..	..	.. ..
31	66	80	75	..	..	.. ..

Red river rose this month 11 inches—and is below high water, 7 feet 5 inches.

Canal Tolls.—The tolls collected on the New York State Canals for the week ending on the 21st of May, amount to the sum of $52,695 88. This exceeds the amount collected in the corresponding week last year by the sum of $8,546 73: and it is greater than the collections in the corresponding week in 1833, by the sum of $15,956 78.

The tolls received at Buffalo during the week amount to $7,196 39, being greater by $3,400 than the collections for the third week in May last year, and $4650 more than the receipts at that place for the corresponding week in 1833.

Apparatus for Making Ship's Biscuits. By Thomas Tassell Grant, Esq., of Weovil, near Portsmouth.*

The advantages claimed for the new, over the old method of preparing ship's biscuit, are, superior economy and expedition, greater cleanliness in the process, and a better quality in the manufactured article.

The mode of making ship's biscuit, as practised in the king's bakehouse at Portsmouth, was as follows:

Five men were appointed to the service of each of the nine ovens, being forty-five in the whole.

The first of these was the idleman, whose business was to mix the meal and water in due proportions, and to incorporate the materials as accurately as possible by kneading the dough for half an hour, with his naked arms plunged into it up to the elbows, and finishing the operation by jumping into the trough and treading the dough with his feet. Hence it passed to the brakeman, who completed the kneading by means of a lever, on which he pressed with his whole weight, this part of the process being called riding down the dough.

It then passed into the hands of the furner, who first divided the dough into lumps somewhat bigger than an egg, and passed them on to his mate, who pressed and moulded each by hand into the form of a biscuit, and finished by pricking them with an iron instrument, to prevent blisters from rising in the dough during baking.

The biscuits being thus formed, were supplied in succession to the pitcher, who threw each on the peel of the furner as soon as he had deposited the previous one in its proper place in the oven. Each oven was capable of holding 450 biscuits, weighing together one hundred weight; and two charges, that is, 900 biscuits, were baked in an hour.

The above-described process, besides the general slovenliness of it, was liable to the two following disadvantages:

It was not possible for the idleman and brakeman, with all their care, to effect a perfect and uniform mixture of the flour with the water; the consequence of which was, that the wetter portions detained some of the water till it was boiling hot, and in that state re-acted on the starch of the flour, so as to give the biscuit, when dry, a glossy fracture and almost stony hardness.

Neither could the furner divide the mass of dough into lumps of perfectly equal size, in consequence of which, the biscuits being of various thickness, the thinner ones were scorched in the baking, and the thicker ones were under-baked, so that they soon became mouldy in the close warm air of a ship's bread-room.

In Mr. Grant's apparatus, the greater part of the labor is performed by steam power; the nine ovens are heated by one continuous fire-place, the flame of which is admitted by means of a register into each oven as soon as the previous charge has been withdrawn, and in five minutes brings it to a sufficient heat. It takes fourteen or fifteen minutes to bake each charge, so that three charges can be worked off in one hour, being an advantage in point of expedition of one-half more than by the old method.

This apparatus was first erected at Weovil, near Portsmouth, in the year 1832, under the immediate superintendence of Sir John Rennie, and has continued at work successfully up to the present time. It has since been adopted, with certain modifications, at the bakehouse of Messrs. Fraser and Hullah, of Wapping, who have kindly permitted the Society to inspect it, and to take the requisite observations for preparing the annexed sketches and description, by which it is hoped that it will be rendered generally intelligible.

The first machine is the mixer, of which fig. 1 is an end elevation, fig. 2 a transverse section, and fig. 3 a longitudinal section. It consists of a cast-iron case, *a*, *a*, nearly four feet long and three feet in diameter, enlarged, however, at the upper part, a few inches beyond the circular form, as shown by the upper dotted line in fig. 2. The radical lines in fig. 1 are merely ribs to strengthen the end of the case. A flap or door, *b*, *b*, the whole length of the case, opens upwards, to enable the workmen at any time to inspect the interior; and another larger flap or door, *c*, *c*, opens downwards, for the purpose of removing the contents of the case. This latter door is opened and shut by means of a quadrant-rack, *d*,

Fig. 1.

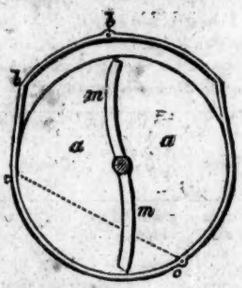


Fig. 2.

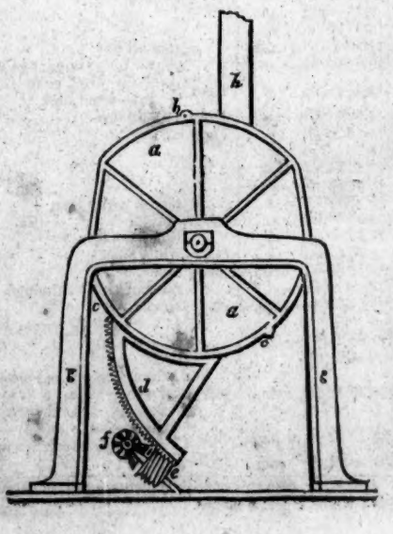
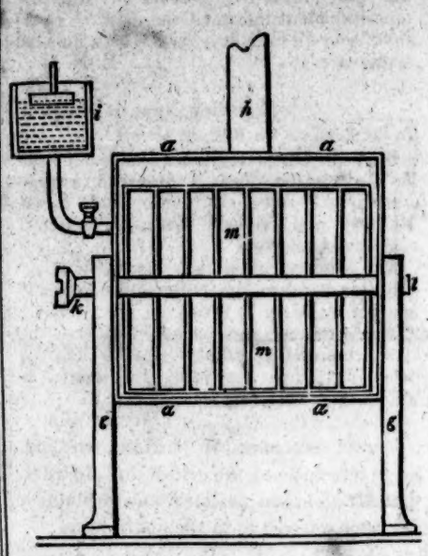


Fig. 3.



worked by an endless screw, *e*, which is moved by a pair of bevel pinions, *f*, and these are acted upon by a small winch and axle attached to the supports, *g*, *g*. The operation of this machine is as follows: The requisite quantity of flour is sent down from the loft above by the shoot, *h*, and the proper quantity of water is supplied from the small cistern, *i*, which has a float and gauge, with a line and pulley, to indicate the quantity admitted from a larger cistern above, and a pipe and cock to convey the water into the case. The flour and water being admitted, the central axle or shaft, *k*, *l*, is put into gear with the steam engine by means of the coupling-box, *k*; the axis is thus made to revolve very rapidly, carrying around with it the frame of eighteen knives or mixers, *m*, *m*. These knives, which are curved, as shown in fig. 2, are two inches wide, and three-eighths of an inch thick at the back; they are connected at their extremities by similar longitudinal knives, which, in revolving, almost touch the lower part of the case. By these means, it is evident that the flour and water must in a short time become thoroughly mixed. The paste is then removed by hand through the door, *c*, *c*, and placed upon a table, which is as close as convenient to the mixer, and which is now to be described.

This table is shown in an elevation fig. 4, plan fig. 5, and transverse section fig. 6. It has a cast-iron frame and legs, *a*, *a*, *a*, a cast-iron bed, *b*, *b*, (six feet and a half long and three feet wide,) in which are the six holes, *c*, *c*, &c., to receive friction-rollers, on which run the boards to receive the dough. Fig. 7 is an enlarged section of the side, *a*, of the table; *b*, is the bed; *c*, one of the friction-rollers; and *d*, the board. The sides, *a*, *a*, of the table support a very heavy cast-iron roller, *e*, eighteen inches in diameter, which, when resting on the table, is about two inches clear of the board, *d*. This roller is made to run alternately, and with great rapidity, from one end of the table to the other, by means of a pair

* The large gold medal was voted by the Society of Arts for this apparatus.

Fig. 4.

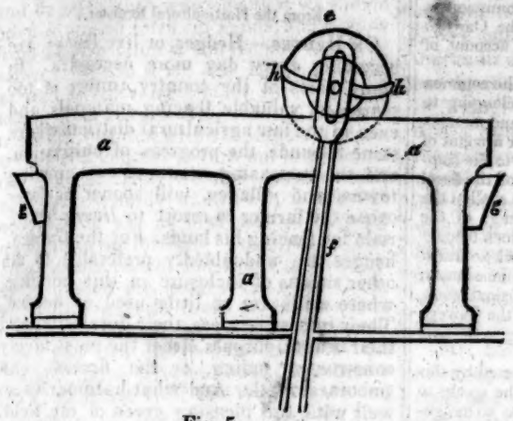


Fig. 6.

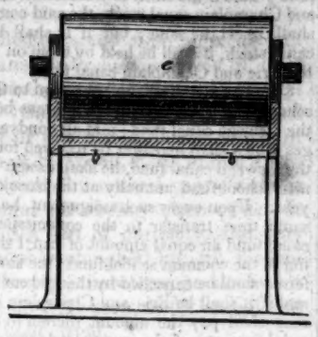


Fig. 8

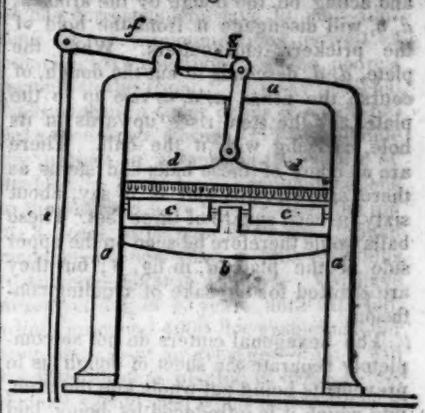


Fig. 5.

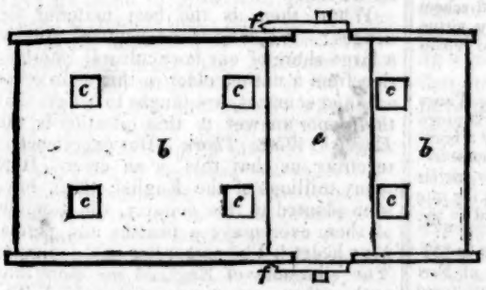


Fig. 7.

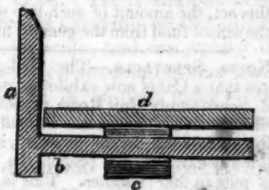


Fig. 9.

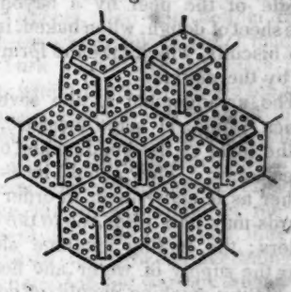
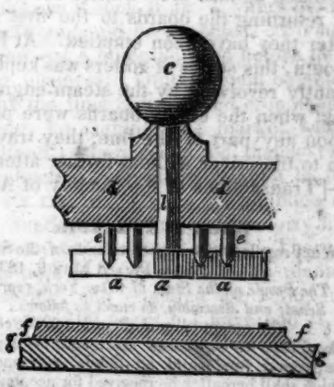


Fig. 10.



of beams ten or eleven feet long, attached to centres below the floor under the middle of the table, and made to alternate by a crank from the steam engine; the upper end of one of these beams is seen at *f*, fig. 4, showing the groove in its extremity, to allow the axis of the roller to play in it as the beam alternates. It will now be evident, that when a mass of dough or paste is taken from the mixer and placed upon the table, it must quickly be compressed by the roller into a cake equal in thickness to the distance of the roller from the board, which, in this case, is two inches. During this process a considerable quantity of dry flour is sprinkled on the dough and on the board, a large portion of which would be swept off by the roller and lost, but for the troughs, *g*, *g*, at the ends of the board, which catch and retain it. Notwithstanding this sprinkling with dry flour, a small quantity of dough would occasionally adhere to the roller, were it not kept constantly and perfectly clean by means of two thin knives, extending on opposite sides along its whole length, and attached to two pairs of curved arms, one pair of which, *h*, *h*, is seen fixed to the beam *f*. When this operation is finished, the board with the dough is withdrawn, and another board introduced, on which the process is repeated. The first board and dough being withdrawn, are conveyed on a series of friction-rollers, to a second table, precisely similar to that just described, except that the roller approaches to the board within such a distance as is required for the thickness of the biscuit. The dough, which was reduced to a cake two inches thick at the first table, is cut into pieces, and laid in portions on the second table, where it is quickly brought down to the proper thickness for biscuits. The board containing this comparatively thin sheet of dough is pushed forward, still running on friction-rollers, towards a machine next to be described, while the workmen at the second table repeat their operations on the fresh portions of the dough which they have received from the first.

The machine, towards which the board and sheet of dough now rolls, is shown in fig. 8: it consists of a strong cast-iron frame, *a*, *a*, *a*, with cross-beams, *b*, supporting three or more pairs of rollers, *c*, *c*, on to which the board is pushed. Immediately above is a thick plate of cast-iron, *d*, *d*, three feet square, which is made to ascend and descend alternately by an eccentric, which acts on the rod, *e*, the lever, *f*, and the guide-rod, *g*. The iron plate, *d*, is shown in the figure at its lowest position; it is, of course, at its highest when the dough and board are brought under it. When this is done, it descends and cuts the dough into hexagonal pieces or biscuits, by means of thin knives, one inch wide, affixed to its under surface, and arranged so as to form hexagonal spaces. A small part of the under side of the plate, *d*, *d*, is shown on a larger scale in fig. 9, where, in addition to a portion of the hexagonal knives or cutters,* will be seen a number of small dots or circles, which indicate the pins or prickers to give the requisite punctures to the biscuits before they are baked. These pins are as long as the depth of the hexagonal cutters; that is to say, one inch; they are about one-third of an inch in diameter, and pointed at their extremities. The effect of all these cutters and pins would, however, be to cause the plate, *d*, to cling to, and lift with it, the sheet of dough. In order to prevent this, a very ingenious contrivance is introduced; a part of which will have been observed in fig. 9. In each hexagon will be seen three arms, branching from the centre. These are formed of iron, and each set is connected with a small vertical iron stem, which passes through the plate, *d*, moving easily, and is surmounted by an iron ball, two inches in diameter, acting as a weight to press the stem and the arms downwards. One of these balls, with its stem and arms, and a portion of the plate, *d*, *d*, is shown in fig. 10, where *a*, *a*, *a*, are the three arms; *b*, the stem; *c*, the ball; *f*, *f*, a portion of the dough; and *g*, *g*, a part of the board beneath. It will easily be understood, that when the plate, *d*, *d*, rises, the stem, *b*, will drop through its hole, pressed by the ball, *c*,

* It will be recollected by those of our readers, who have been subscribers from the commencement, that we gave, in the October number of vol. ii, a description and engraving of a cracker machine—of the relative merits of which we are not able to speak.—[Ed. M. M.]

and acting on the dough by the arms, *a*, *a*, *a*, will disengage it from the hold of the prickers and cutters. When the plate, *d*, *d*, descends to cut the dough, of course the arms, *a*, *a*, *a*, rise up to the plate, and the stem rises upwards in its hole, carrying with it the ball. There are as many of these balls and stems as there are biscuits, that is to say, about sixty in each square of three feet. These balls would therefore be seen on the upper side of the plate, *d*, in fig. 8; but they are omitted for the sake of avoiding confusion.

The hexagonal cutters do not so completely separate the sheet of dough as to prevent its being put whole into the oven, into which it is introduced by being laid on a plate of iron, which fits on to the handle of the peel by a bayonet-joint. The sheet of dough, when baked, is broken into biscuits, which take the form marked out by the cutters.

The arrangement of the several machines would, in some measure, depend on the form of the building and other circumstances. They should be as near together as is convenient, in order that the boards may pass from one to the other on rollers; the mixing machine should be near the supply of water and flour; and the cutting-machine should, of course, be near the oven. A series of rollers should be fixed against the wall, for the purpose of returning the boards to the first table after they have been emptied. At Portsmouth, this series of rollers was kept constantly revolving by the steam-engine, so that when the empty boards were placed upon any part of the line, they travelled up to the mixer without further attention. —[Transactions of the Society of Arts.]

Laws of New York.

An act regulating the specific funds of the State.
Passed May 9, 1835.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

§ 1. The comptroller shall assign to the common school fund all bonds and mortgages belonging to the general fund: and all bonds and mortgages which shall hereafter be received for account of the general fund, he shall annually, at the close of the fiscal year, assign as follows, viz: First, such an amount thereof to the literature fund as shall be equal to the amount of capital that may at the time be due to that fund from the general fund; and second, the residue of the common school fund. The amount which shall be so transferred to the common school fund, shall be charged to that fund in the books of the comptroller's office, and shall be refunded to the general fund by current receipts into the treasury, on account of the capital of the common school fund.

§ 2. The comptroller shall assign to the common school fund all bonds and mortgages belonging to the literature fund, and all bonds and mortgages which shall hereafter be received for account of the literature fund, including such as shall be assigned to that fund pursuant to the preceding section, he shall assign to the common school fund annually at the close of the fiscal year. And upon every such assignment, he shall at the same time transfer to the literature fund an equal amount of bank stock or public stock belonging to the common school fund.

§ 3. The comptroller shall assign to the common school fund all bonds and mortgages belonging to the Erie and Champlain canal fund; and all bonds and mortgages which shall hereafter be received for account of the Erie and Champlain canal fund, he shall assign to the common school fund annually at the close of the fiscal year. Upon every such assignment, he shall at the same time transfer to the commissioners of the canal fund an equal amount of canal stock belonging to the common school fund; And if the stock so transferred shall be Erie and Champlain canal stock, the said commissioners shall cancel the same; but if it shall be Oswego canal stock, it shall be held by them on account of the Erie and Champlain canal fund.

§ 4. The comptroller shall assign to the common school fund all bonds and mortgages belonging to the Oswego canal fund; and all bonds and mortgages which shall hereafter be received for account of the Oswego canal fund, he shall assign to the common school fund annually at the close of the fiscal year. Upon every such assignment, he shall at the same time transfer to the commissioners of the canal fund an equal amount of canal stock belonging to the common school fund; and if the stock so transferred shall be Erie and Champlain canal stock, they shall pay the amount thereof to the Oswego canal fund out of the moneys belonging to the Erie and Champlain canal fund.

§ 5. The bonds and mortgages directed by this act to be assigned immediately, and the stocks to be transferred at the same time, shall be so assigned and transferred as of the thirtieth day day of September, one thousand eight hundred and thirty four; but if there shall be any loss to the school fund by any of the bonds assigned to it by virtue of this act, the amount of such loss shall be repaid to the school fund from the general fund.

Novel Spectacle.—The Ogdensburg Times states that a Car is now exhibiting on the Saratoga and Schenectady Rail Road, propelled by a horse walking inside of it; so that instead of a horse travelling before the car, as formerly, he now travels inside the carriage, and propels the car at the rate of a mile in four minutes. This is indeed an age of wonders.

The above described Horse Power Car or Machine, was invented by Eliakim Briggs, of Fort Covington, Franklin county, and are manufactured and sold in Ogdensburg, by S. Bush, Esq. The Power can be applied to every purpose for propelling machinery.

Imporatnt.—We learn, says the Daily Advertiser of this morning, that the Water Commissioners had a meeting yesterday, and appointed Major Douglass Engineer for constructing the works for bringing water into the city. This is an excellent appointment, and one that will be acceptable to all classes. We learn further that the Commissioners are actively engaged in taking every necessary step for the speedy accomplishment of the great work.

The Water Loan.—The City Stock of one million of dollars, being that part of the Water Loan now required, has been taken by Messrs. Harmon Hendricks and George Newbould, at an average rate of about $112 for $100 at five per cent stock payable 1860.—[Jour. of Com.]

[*From the New-York Mirror.*]

Tell Him I Love Him Yet.

[The following exquisite song was written by the author of Lillian, and has never been published]

Tell him I love him yet,
As in that joyous time!
Tell him I ne'er forget—
Though memory now be crime!

Tell him when fades the light
Upon the earth and sea,
I dream of him by night—
He must not dream of me!

Tell him to go where Fame
Looks proudly on the brave,
And win a glorious name
By deeds on land and wave.

Green, green upon his brow
The laurel wreath shall be—
Although that laurel now
Must not be shared with me!

Tell him to smile again
In pleasure's dazzling throng
To wear another's chain,
To praise another's song!

Before the loveliest there
I'd have him bend the knee,
And breathe to her the prayer
He used to breathe to me!

Tell him that day by day
Life looks to me more dim—
I fade when I pray,
Although I pray for him.

And bid him when I die
Come to our fav'rite tree—
I shall not hear him sigh—I
Then let him sigh for me!

AGRICULTURE, &c.

[From the Horticultural Register.]

On Hedges.—Hedges, or live fences, are becoming every day more necessary. In many parts of the country timber is too scarce for valuable fencing materials, and even in the few agricultural districts where stone abounds, the progress of cultivation, and the increasing wants of our growing towns, and villages, will sooner or later cause the farmer to resort to *living* materials for fencing his lands. For the *Garden*, hedges are undoubtedly preferable to all other means of inclosure in this country, where walls are so little used or needed. Their imperviousness, their durability, and their beauty, surpass either the most nicely constructed paling, or the firmest and smoothest wall. And what harmonizes so well with the pleasing green of the field, or the garden, as the verdant foliage of the lie fenvce?

What, then, is the best material for hedges? We, who are accustomed to draw a large share of our horticultural information from a nation older in this as in other arts and sciences, are taught to believe that the proper answer to this question is, the *English White Thorn*. But experience is teaching us that this is an error. How many millions of the English thorn have been planted in this country, and how few of them ever make a healthy and permanent hedge! The secret lies in the climate. The summers of England are *moist* and cool, when compared with ours. The powerful sun and dry climate, which bring to plentiful maturity the Indian corn, the peach and the melon, are not the sun and the climate which are congenial to the European Hawthorn. They are too fine and dry. In the moist and showery months of April, May and June, the Hawthorn looks exceedingly promising; its shoots appear green and healthy; but soon the hot July sun bursts forth, and it is checked almost as by a nipping frost. Then the insects attack it, and by the last of August the hedge is stinted and already leafless! Hence its growth is exceedingly slow, and as it is a prey to insects, which cause its decay, and to defoliation by the intensity of the summer sun, it is neither durable or beautiful. It is true, that during the first two or three years of its growth, its healthy and vigorous appearance is very flattering; but this is only whilst the plants are young, and before their interlacing roots and branches have found it necessary to attract nourishment from a limited portion of the surrounding soil.

It goes far to corroborate the opinion, that the dryness of our soil and atmosphere are the *first* causes of failure with the English Hawthorn, to find that in situations *naturally moist* and damp through the summer, it appears to grow with equal luxuriance, and to attain the same degree of maturity, as in Europe; but, as only small portions of the farm, and no good garden, will be found in moist localities, it is therefore necessary to search for some other material more generally adapted to the wants of our wide-spread territory.

There are over twenty species of *Cratægus*, or Hawthorn, indigenous or growing wild in North America alone — more than the aggregate number in the known world besides! Shrubs and trees which, for sharpness and abundance of thorns, beauty of foliage, rapidity of growth, and compactness of form, (when properly trimmed,) yield to none others of the genus. Is it not remarkable, that with this abundance

and choice of materials for hedges, scattered by bountiful nature through every wood, and by every high-way side, that we should have to stretch forth our hands, and borrow from another clime a starved and lingering exotic? But so it is; and Horticulturists, as well as other men, must gather knowledge from experience. After repeated trials and failures with the imported plant, we are now content to turn our attention to the natives. Here we find species which are perfectly hardy, and to which our sun and climate are as necessary as they are injurious to the foreign. Four species have been already tested, and found to be admirably adapted for hedges, viz.: the Cockspur or Newcastle thorn (*Cratægus crus galli,*) the Washington thorn (*C. populifolia,*) and two others, only known by the common name of thorn bush (*C. coccinea* and *C. punctata.*) Of the Washington and Newcastle thorns, very fine hedges are now thriving in many sections of the country. They are found to grow with more luxuriance, to retain their fine vivid foliage through the hottest of the summer, and, in common with many other American trees, to assume an autumnal tint of the most beautiful crimson and orange, which remains until severe frosts. These two species seem to adapt themselves to almost any soil; but if not, their places may be supplied by such species as are found naturally to thrive best in the neighborhood—for almost every section of the country abounds with some species of Hawthorn. Perhaps in the Southern States, they will ascertain that some of the peculiarly southern species succeed best.

For situations where strong hardy hedges are wanted, in a short period of time, the three-thorned Acacia (*Gleditschia triacanthos*) will be found an excellent plant. Hence it is well adapted to *farms;* but from its rampant growth, it is difficult to keep it sufficiently close in its side spray properly to shelter the garden from all its enemies. Among the Hedge plants which demand the attention of the Horticulturist, are the Buckthorn (*Rhamnus catharticus,*) which makes an excellent fence; the Privet, long in use, and a beautiful and verdant *inner* shelter to the garden, but not a sufficient protection against cattle; and the *Mespilus pyracantha,* or Evergreen thorn, ornamented in its white blossoms and coral berries. European publications speak in high terms of the great beauty and excellence of the Japan Quince (*Cydonia japonica*)—already known here as a charming flower shrub,—used there as a garden hedge plant. We have great hopes of success, also, with the Osage Orange (*Maclura aurantiaca,*) a native of the West; and its glossy green foliage, stone thorns, and rapid growth, will place it in the first rank of hedge plants. A. J. Downing.

Newburgh, N. J., March.

[From the Maine Farmer.]

Madder.—Since the commencement of this volume, we have occasionally presented you with communications on the subject of raising Madder. Madder is a root which is much used by the dyer and calico printer, and has hitherto been and is even now brought from Europe in vast quantities. Indeed, nearly all that is used in America is brought from across the Atlantic, for very few have ever cultivated it in the United States, or till lately have even thought of the thing. Mr. Russel Bronson, of Bridgewater, Oneida county, N. Y., has successfully cultivated it for a few years past, and has done much in calling the attention of the public to its culture.

We published some time ago his remarks in answer to some queries of ours in regard to the prospect of its doing well in Maine. Since then we have learned that a root or two was formerly grown in the garden of E. Wood, Esq., in this town, where it lived for several years without any particular care being taken of it. It was kept as a sort of curiosity, and was finally probably ploughed up and thrown away. There is, therefore, no doubt but that it will do well here, as far as soil and climate is concerned.

Mr. Bronson, who seems to have had as much experience in the culture of this root, and who has given what late information upon the subject we have had, is very sanguine that it will ultimately be one of the most valuable crops that the farmer can raise. He is anxious to get up a company for carrying on the cultivation on a large scale, and we verily believe the projected speculation has much more of reason in it than most of the schemes which are so eagerly embraced at the present day. The following extracts from a private letter will give an expose of his plan. Mr. Bronson, we hope, will excuse us for publishing his remarks. As for the ridicule which he mentions, that is a thing of course. There is always a set of wise-acres in every neighborhood, who are always ready to hoot and sneer at whatever they either envy or do not understand.

"I will not trouble you at this time by explaining the difference that should be made between the price of madder roots sold in the fall of three years old, and those sold in the spring, as it is my intention to send a communication to the editors of all the agricultural papers who have my name on their books as a subscriber, detailing the most approved mode of culture, the kind of soil, the location, digging, washing (or rinsing, as the soil may be heavy or light,) drying, grinding, &c. I would wish to remark here that I have not as yet given to the public any account of the method of digging, washing, drying and grinding, as I was aware that there would be no necessity of giving this information to the public until I should be compelled to search for the best plan in digging, washing, drying and grinding the madder from 8 acres next fall. The results of my experiments will be given to the public through the columns of the "Cultivator," "Genesee Farmer," "N. E. Farmer," and "Maine Farmer," in November next. There is not, I believe, but one cultivator, at a distance from this, whose crop is at this time of a suitable, but especially profitable, age to take up. I saw yesterday 1000 acres of land, owned by several farmers, that would, without a shadow of doubt on my mind, produce once in 4 years for 20 years a clear profit, decently managed, of *two hundred thousand dollars*—this would include the whole expense of rent of land, seed, cultivating, digging, drying, &c., and the interest of land and building included. You perhaps will say this looks well on paper, as one correspondent says to me—alluding to my communications as well as others—"My neighbors are the poorest farmers in the Union," they say; "That Cultivator is a queer paper, I don't believe them large stories;" "They ridicule my project in attempting the culture of madder." In my former communications to the public, I have never stated the crop at 3 years to be over 2000 lbs. ground madder—we now raise in hills 2400 hills to an acre—4000 in 4 years. We have never yet dug at 4 years until last fall, which produced 4000 lbs. ground madder from an acre at an average—what it will do from an acre planted in drills 3 feet wide, 4 vacant, and when finished 5 or 6 wide, 1 to 1½ feet vacant, we do not know, but supposing it should produce but 5000 lbs. at 12½ cents, (top and bottom roots ground,)—average price of Dutch madder in New-York market for 13 years past 15 cents, which is lower than the ten preceding years—this would amount to, at 12½ cents, $625—taking out the outlay $140 to 160, it leaves great profits. I have offered some of my neighbors, some time since, that if they would let me select some of their best land, and they go through with the process according to my directions, I would warrant them $100 clear of all expense per acre, they giving me the balance. Some would object to planting, as it took 3 or 4 years before any returns could be expected. I would ask how old a horse must be before he is fit for business. Others again objected that by the time their second crop should be ready for digging, the market would be glutted. I here remarked, that several estimates had been made relative to the quantity required for the consumption of the United States, varying from forty-five to seventy-five thousand acres. There is at this time in the ground, to be planted this spring, and engaged for 1836, not much over 100 acres. I have had it in contemplation for some time past, in offering my services to some capitalists, say $30,000 in 8 or 10 semi-annual instalments—would take a sixteenth part of the stock and superintend the establishment for $1000 per annum, to be located on the prairies of Ohio, Michigan, or perhaps Illinois. I should be pleased to receive communications on the subject. I should think it very important to the prosperity of a company, that dealers in the article residing in Boston, New-York, Albany, Utica, Rochester, Buffalo, and Detroit, should be associated with the company as stockholders and agents. I am about presenting the subject to a few gentlemen in Utica—a greater sum could be employed if wished. Respectfully yours,

R. Bronson.

The whole amount of wool raised last year in the United States was seventy-five millions of pounds, in addition to which about three millions were imported from abroad, making the whole quantity manufactured in American factories seventy-eight millions of pounds. In addition to the above, manufactured woollen cloth was imported to the amount of six millions, making the entire consumption in this country eighty-four millions of pounds.—[Balt. American.]

NEW-YORK AMERICAN.

MAY 30—JUNE 5, 1835.

LITERARY NOTICES.

A NEW FRENCH AND ENGLISH PRONOUNCING DICTIONARY BY F. C. MEADOWS, M. A. of the University of Paris—first American edition: corrected and improved by GEO. FOLSOM, M. A.—1 vol.: *N. Y.*, PETER HILL & Co.—We look upon this as a very valuable contribution to the cause of accurate knowledge. The pronunciation of the French is simplified to the American learner, as much, as through the eye, it ever can be, by employing the familiar sounds of his own language, to convey to him that which he is to give to the French word. So far as we have examined it, this is successfully accomplished, though at first sight frequently, we were half disposed to doubt about it. Yet on pronouncing the word to ourselves, and then comparing it with the sounds set down in the book, strange and uncouth looking as some of these are —we found them accurate. There is too, by way of introduction, quite a good abridged grammer of the French tongue: the whole is very well printed though in a small type.

PRAISE AND BLAME, by CHARLES WILLIAMS. New York, BLISS, WADSWORTH & Co.—This is a little volume of "true stories," with a sort of homily at the end of each, dispensing praise and blame according to the merits of the case, and intended for the improvement of young children.

SCRIPTURE CATHECISM, &c. &c.: New-York GRIFFIN & Co.—The Cathecism of the Westminster Divines, with the Rev. *Dr. Henry's* questions and answers, and a Cathecism for children by the Rev. *John Brown*, are included in this little book.

FACTS, FEELINGS AND FANCIES, by CHARLES JAMES CONNOR, 1 vol,: New-York BLISS, WADSWORTH & Co. For papers written under the circumstances of these, "in the intervals of labor or disease by one who has never known the advantages of education,"—they are not without merit.

THE CONQUEST OF FLORIDA, BY HERNANDO DE SOTO: by THEODORE IRVING, 2 vols., Philadelphia, CAREY, LEA & BLANCHARD—for sale by WILEY & LONG.—The great poet has asked hypothetically, "what is there in a name?": a great deal sometimes, and sometimes little enough. In the names associated in this new work, by an American on an American theme, there is much we think to attract —and the promise of the title is made good by the performance. The dedication of these pages, by the author, to his uncle *Washington Irving*, is affectionate and becoming. It was while with that uncle in Spain, that the perusal in Spanish of the history of *Hernando de Soto's* marvellous expedition to Florida—written by the Inca *Garcilaso de la Vega* first fired the young imagination of our author, to the scenes and events there recorded; and falling in afterwards with an anonymous narrative of the same occurrences, purporting to be written by a Portuguese soldier,—he was led on to plan, and after due investigation and research, to write a "full account of an expedition, which throws such an air of romance over the early history of a portion of our country."

It will be gathered from this statement, that, although *Garcilaso de la Vega* is the main authority relied on, it is not a translation, but a compilation, in which abundant room is left for the exercise of judgement in the relation of, and taste in the arrangement, and manner of setting forth, the materials employed.

Our readers will, we think, find that these qualities are both evinced in the volumes now presented to them.

THE YOUTH'S BOOK, OR TALES AND SKETCHES ILLUSTRATIVE OF MORAL DEPORTMENT; by JOHN BOWRING, LL. D. first American edition, Philadelphia, H. CONRAD and E. PARSONS.—This is an American re-publication, under an altered title, of a work of Dr. Bowring's, entitled "Minor Morals for Young People," and intended by him to illustrate the "greatest happiness principle:" that is to say, that, "it is impossible to add to the stock of virtue, without adding to that of felicity, or to increase the amount of felicity without increasing that of virtue." It is a charming little book, which boys and girls of ingenuous minds cannot read without being improved by its well told stories. We do not think the very indifferent wood cuts, with which it is "embellished," any additional attraction.

NARRATIVE OF A SECOND VOYAGE in search of a North West passage, and of a residence in the Arctic Regions, during the years 1829, '30, '31, '32 and '33, by Sir JOHN ROSS, Captain in the Royal Navy, &c. &c. 1 vol. 8vo. Philadelphia, E. L. CAREY & A. HART.—The marvel of Capt. Ross' return, with the survivors of his crew, after long years of absence, and when hope even, had fled from the breast of all but a few daring philanthropists, like Capt. BACK,—occupied for a space all attention; and the record of the extraordinary exposure and escape of these Arctic navigators, was looked for with intense interest. We know not why this interest was balked, by the long delay that has intervened, since the *restoration* of Capt. Ross, and the publication of the narrative, but apprehend that it may not be as eagerly sought, as earlier it would have been. As it is, the book had not, at the latest dates, been published in England, so that we have here our copy, printed from the sheets, sent from England, as early as possible.

In a preliminary dissertation, Capt. Ross states this, to our judgment, sound conclusion.

"It remains therefore, to say, that while my voyage and its results, have demolished all hypothesis and hopes, [of finding "a North West passage,"] but those which may still be entertained respecting Lancaster Strait, and the Pole—if, indeed, the latter has still an advocate remaining—there are now fewer temptations than ever to make any fresh attempt for solving this problem."

There are many passages in this narrative—written plain unpretending style—which we would gladly find room for, but must content ourself with that, describing the failing in of these forlorn navigators, with the ship which rescued them. It is simple and impressive.

26th March, 1833.—At four in the morning, when all were asleep, the look out man, David Wood, thought he discovered a sail in the offing, and immediately informed Commander Ross, who, by means of his glass, soon saw that it was in reality a ship. All hands were immediately out of their tents and on the beach, discussing her rig, quality, and course; though there were still some despairers who maintained that it was only an iceberg.

No time was however lost, the boats were launched, and signals made by burning wet powder; when, completing our embarkation, we left our little harbor at six o'clock. Our progress was tedious, owing to alternate calms, and light airs blowing in every direction; yet we made way towards the vessel, and had it remained calm where she was, should soon have been alongside. Unluckily, a breeze just then sprang up, and she made all sail to the southeastward; by which means the boat that was foremost was soon left astern, while the other too were steering more to the eastward, with the hope of cutting her off.

About ten o'clock we saw another sail to the northward, which appeared to be lying to for her boats; thinking, at one time, when she hove to, that she had seen us. That, however, proved not to be the case, as she soon bore up under all sail. In no long time it was apparent that she was fast leaving us; and it was the most anxious moment that we had yet experienced, to find that we were near to no less than two ships, either of which would have put an end to all our fears and all our toils, and that we should probably reach neither.

It was necessary, however, to keep up the courage of the men, by assuring them, from time to time, that we were coming up with her; when, most fortunately, it fell calm, and we really gained so fast, that, at eleven o'clock we saw her heave to with all sails aback, and lowered down a boat, which rowed immediately towards our own.

She was soon alongside, when the mate in command addressed us, by presuming that we had met with some misfortune and lost our ship. This being answered in the affirmative, I requested to know the name of his vessel, and expressed our wish to be taken on board. I was answered that it was "the Isabella of Hull, once commanded by Captain Ross;" on which I stated that I was the identical man in question, and my people the crew of the Victory. That the mate who commanded this boat, was as much astonished at this information as he appeared to be, I do not doubt; while, with the usual blunderheadedness of men on such occasions, he assured me that I had been dead two years. I easily convinced him, however, that what ought to have been true, according to his estimate, was a somewhat premature conclusion; as the bear-like form of the whole set of us might have shown him, had he taken time to consider, that we were certainly not whaling gentlemen, and that we carried tolerable evidence of our being "true men, and no impostors," on our backs, and in our starved and unshaven countenances. A hearty congratulation followed of course, in the true seaman style, and, after a few natural inquiries, he added that the Isabella was commanded by Captain Humphreys; when he immediately went off in his boat to communicate his information on board; repeating that we had long been given up as lost, not by them alone, but by all England.

As we approached slowly after him to the ship, he jumped up the side, and in a moment the rigging was manned; while we were saluted with 3 cheers as we came within cable's length, and were not long in getting on board of my old vessel, where we were all received by Captain Humphreys with a hearty seaman's welcome.

Though we had not been supported by our names and characters, we should not the less have claimed, from charity, the attentions we received, for never was seen a more miserable-looking set of wretches; while, that we were but a repulsive-looking people, none of us could doubt. If, to be poor, wretchedly poor, as far as all our present property was concerned, was to have a claim on charity, no one could well deserve it more; but, if, to look so, be to frighten away the so called charitable, no beggar that wonders in Ireland could have outdone us in exciting the repugnance of those who have not known what poverty can be. Unshaven since I know not when, dirty, dressed in the rags of wild beasts instead of the tatters of civilization, and starved to the very bones, our gaunt and grim looks, when contrasted with those of the well-dressed and well-fed men around us, made us all feel, I believe for the first time, what we really were, as well as what we seemed to others. Poverty is without half its mark, unless it be contrasted with wealth: and what we might have known to be true in the past days, we had forgotten to think of, till we were thus reminded of what we truly were, as well as seemed to be.

But the ludicrous soon took place of all other feelings; in such a crowd and such confusion, all serious thought was impossible, while the new buoyancy of our spirits made us abundantly willing to be amused by the scene which now opened. Every man was hungry and was to be fed, all were ragged and were to be clothed, there was not one to whom washing was not indispensable, nor one whom his beard did not deprive of all English semblance. All, every thing, too, was to be done at once; it was washing, dressing, shaving, eating, all intermingled, it was all the materials of each jumbled together; while in the midst of all, there were interminable questions to be asked and answered on all sides; the adventures of the Victory, our own escapes, the politics of England, and the news which was now four years old. But all subsided into peace at last. The sick were accommodated, the seamen disposed of, and all was done, for all of us, which care and kindness could perform. Night at length brought quiet and serious thoughts; and I trust there was not one among us who did not then express, where it was due, his gratitude for that interposition which had raised us all from

a despair which none could now forget, and had brought us from the very borders of a not distant grave, to life and friends and civilization.

Long, accustomed, however, to a cold bed on the hard snow or the bare rock, few could sleep amid the comfort of our new accommodations. I was myself compelled to leave the bed which had been kindly assigned me, and take my abode in a chair for the night, nor did it fare much better with the rest. It was for time to reconcile us to this sudden and violent change, to break through what had become habit, and to inure us once more to the usages of our former days.

HELON'S PILGRIMAGE TO JERUSALEM, translated from the German of FREDERICK STRAUSS, revised and enlarged by BARON STOW, Pastor of the 2d Baptist Church, Boston. 1 vol. Boston. WM. D. TICKNOR. A picture of Judaism, in the century which preceded the advent of our Saviour, is attempted in this work, which was first published about ten years ago, and received with marked interest. The design is one that cannot fail to attract all readers, who, in the delineations of such a work, if executed with fidelity, would find constant elucidations of the book of books—the Bible. That it is so executed, is, we think, to be confidently inferred, from the desire frequently expressed, in this country, as we are told in the prefatory notice of the American editor, to procure the work, as aiding and facilitating theological studies. Hence, the present publication, which, by the omission of the very copious and learned notes, that accompanied the English edition, and the condensing two volumes into one, is furnished in a cheap and accessible form.

The story is one that puts before the reader the whole domestic life and manners of the Jews.

CELEBRATION OF THE FORTY-SEVENTH ANNIVERSARY OF THE FIRST SETTLEMENT OF THE STATE OF OHIO BY NATIVE CITIZENS. CINCINNATI. LODGE, L'HOMMEDIEU & Co.—Under this title we have just received from Cincinnati, a pamphlet embodying the proceeding of a public celebration on the 7th April last—which, we shall ever consider it a peculiar piece of good fortune, that it was our accidental happiness to witness, and share in.

Our columns to day were too much pre-occupied to permit us to extract, or condense from this pamphlet, any connected account of what it so well commemorates; and we, therefore, only print a single letter from among the many very clever ones that were written by those who, invited from a distance, were unable to attend. It is that of the author of *Swallow Barn*, and, although from the absence of all the associations and feelings of the day and place where it was received and read aloud, it can not strike our readers with any thing like the delight, that it did the three or four hundred whole-souled *Buckeyes*, who had grown up with the strapping "blooming girl," whom it so admirably describes, it will yet, with its accompanying toast, be deemed, we think, a capital effort for such an occasion.

BALTIMORE, March 27th, 1835.

Gentlemen—I have received the letter of the committee of invitation, for your approaching State festival on the 7th of next month. I very earnestly regret that I cannot be with you. My professional engagements leave me no time for such a journey before midsummer.

It has long been my purpose, to which I have looked forward as a source of much future pleasure, to make a visit to the West, and especially to your beautiful city. I have deferred the enterprise from summer to summer, I can scarcely tell why, unless it be from some lingering remains of a feeling which was common to my boyhood, that it was well to wait until the West grew ripe, and roads grew better, and towns more populous. For we had a current prophecy then, that the West, from being the child, would become the mother of nations; and in this boyish fancy I have waited that I might see her as a matron. Suddenly, before I was aware, the prophecy has become truth—the West that I dreamed of is no longer there—the wilderness is gone—the Indian is gone—and even the old boatmen have vanished. You have sent colonies still farther towards the setting sun—and the west is a thousand miles away. Ohio was then the chubby and blooming girl of the family, who grew too fast for her garments, in spite of all the tucks and drawing strings and broad plaits, made "to let go." But she is now in vigorous womanhood, not following in the train of civilization and refinement—but leading it, and swaying the balance of the Union, by the weight of her moral and intellectual strength.

You have a noble country, gentlemen, and it is no small source of its happiness, that it occupies a station which draws upon it the kindest regards from all the other members of the Confederacy.—Your relations of friendship and interest are intimate with the North, and the Centre. There is not a state in the circle, that has not reason to to rejoice in the prosperity of Ohio.

As a Baltimorean, I feel myself subsisting under affinities with you, and am acustomed to bring into my familiar reckoning, the certainty of the most various and agreeable social relations with your People. My feelings in this matter are the general feelings of my townsmen. We have just resolved to level the Alleganies, widen the Ohio, and abolish the mile stones, in the romantic, but no longer impracticable exploit of annihilating time and space. When this is achieved, gentlemen we shall be happy to see you and your friends, on any day when you may take a fancy to rise early, with us, at dinner in Baltimore.

I heartily wish we could get this regulated by the 7th of April, but I fear the time is too short.—I will beg you therefore, that you will allow me so far to participate in the festival, as to offer the following sentiments:

"*The States of Ohio and Maryland.*—Through fire and water they will hold together: mountains shall not sunder them."

I beg leave to subscribe myself, very truly yours,

JOHN P. KENNEDY.

[*From the United States Medical and Surgical Journal for April.*]

IMPROVED EDITION OF GOOD'S STUDY OF MEDICINE. By Dr. A. Sidney Doane.

We mentioned in our last, that the Messrs. Harpers, of New York, having lately received a copy of the last London edition of this important work, have committed it to the press for immediate republication. The present edition appeard in London in December last; it is a greatly enlarged copy, with additions from the last manuscript improvements of the learned author, and still farther increased in value by many additions of a pratical character by the distinguished editor, Prof. Samuel Cooper, the writer of the popular surgical dictionary, and other works. The contemplated edition now about to appear from the accurate and excellent press of the Harpers will include the whole work and emendations of Dr. Good, and all additions and improvements by Cooper; and to these throughout will be still further added a large and copious body of practical notes by the American editor, Dr. Doane, of New York, who has for some time been advantageously known to professional readers and practitioners as a gentleman of eminent erudition and capacity. The notes and improvements of Dr. Doane will embrace the leading facts and principles of American practice; and these researches of the editor will enable him to associate with the labors of Dr. Good a large amount of the opinions and observations which have resulted from the clinical experience of the most prominent American authors throughout the United States.—It is believed that the fidelity with which this act of justice will be performed towards the character and capacities of native writers in different parts of our widely-extended country, will give to the projected undertaking a consideration far superior to that of any former edition of this elaborate and valuable work.

We feel justified in thus noticing the present edition of the Study of Medicine, inasmuch as we have carefully examined a considerable number of the sheets already printed; and if Dr. Doane continues to exercise the same industry and judgment throughout the book, we feel satisfied that the profession will be subjected to lasting obligations to him for his services.

We are informed that some few weeks must necessarily elapse before the appearance of the present work, as it is extensive and will be executed in a very beautiful manner; it will be included in two large octavo volumes, and offered for sale at a very reasonable price.

Extract from "The Evening Voluntaries."

BY WORDSWORTH.

Calm is the fragrant air, and loth to lose
Day's grateful warmth, tho' moist with falling dews.
Look for the stars, you'll say that there are none:
Look up a second time, and one by one,
You mark them twinkling out with silvery light,
And wonder how they could elude the sight.
The birds, of late so noisy in their bowers,
Warbled awhile with faint and fainter powers,
But now are silent in the dim-seen flowers:
Nor does the village church-clock's iron tone
The time's and season's influence disown;
Nine beats distinctly to each other bound
In drowsy sequence; how unlike the sound
That, in rough winter, oft inflicts a fear
On fireside listeners, doubting what they hear!
The shepherd, bent on rising with the sun,
Had closed his door before the day was done,
And now with thankful heart to bed doth creep,
And join his little children in their sleep.
The bat, lured forth where trees the lane o'er shade,
Flits and reflits along the close arcade:
Far heard the dor-hawk chases the white moth
With burring note, which Industry and Sloth
Might both be pleased with, for it suits them both.
Wheels and the tread of hoofs are heard no more;
One boat there was, but it will touch the shore
With the next dipping of its slackened oar;
Faint sound, that, for the gayest of the gay,
Might give to serious thoughts a moment's sway,
As a last token of man's toilsome day!

If all too much of Earth there be.

By O. W. W.

If all too much of Earth there be
In feelings I have breathed to thee,
If dreams that in my soul have dwelt,
Seem wilder than thine own hath felt—
O think how I have sought to be
In every hope and dream like thee,
And, when I heard thy sunny tone,
Have wished my spirit like thine own!

If sometimes I have dared to speak
A word that crimsoned o'er thy cheek,
If "dearest" be too fond a name
For me to breathe, or thee to claim—
Yet think how I have checked each word,
By which my lip, not heart, hath erred,
And, in its pure and sinless tone,
Have wished my spirit like thine own!

If Love my wayward bosom move,
To aught thy heart may disapprove,
If Passion and an earthly dream
Within my soul a moment gleam—
O think how much thou canst impart—
Of Virtue to my restless heart,
And breathe a sweet and sunny tone,
To make my spirit like thine own!

[FOR THE NEW-YORK AMERICAN.]

The Blasted Oak.

From a Painting by G. A. LUDLOW.

Dark on the heath—the night gloom fell,
Loud sighed the wind, with fitful spell
The lightning glared around,
And meeting clouds with angry roar,
The burthen of the tempest bore
Far o'er the trembling ground.

Hark! heard ye not 'mid torrents borne,
The echo of a distant horn
Upon the moaning blast?
And clau'ring hoofs? as if with speed,
For life—for life—spurr'd on a steed
It comes, and now—'tis past.

With bloody speed—and frantic mien,
Too well the rider's haste I ween
Of crime, of terror spoke,
And ever and anon he threw
A fearful glance—where lonely grew
On old and gnarled oak.

For 'neath that leafless trunk hath lain,
The mould'ering corse of one long slain,
Oh! God! can such things be?—
The rider spurr'd his courser on—
Oh! for the blessed beam of morn,
To light me cheerily.

On—on—the maddened courser fled,
His snorting nostrils speak his dread—
With visage ghastly pale,
The horseman spurr'd—my gallant steed
Why falter, at thy master's need!
Why tremble thus, and quail?

Avaunt ye spirits of the slain;
My horn shall gaily sound again,
To bid yon Loiterers haste—
He said—and wound a trembling blast—
Started his horse, as moaning, past
A shadow o'er the waste.

'Tis he—the murderer faintly cries,
Oh! God! I see his pleading eyes,
That wide and bleeding gash—
Ha! ha!—'tis but a shadow born,
Of clouds—(such oft the earth hath worn)
Seared by the light'nings flash.

They neared the spot—a forked light,
Played 'round the tree, and by the bright,
And vivid flame it cast—
I saw the murderer writhing fall
Then closed above, nights glooming pall
And louder moaned the blast.

ELLA.

SUMMARY.

Messrs. Carey, Lea & Blanchard will publish, on Saturday next, *The Cragon Miscellany*, number 2, containing *Abbottsford and Newstead Abbey*, subjects of lively interest for general readers. The volume is of 230 pages, and printed as the first.

Celebration of the North Carolina Declaration of Independence.—The Mecklenburg Declaration of Independence was celebrated with great eclat at Charlotte, N.C. on the 20th ult. A vast concourse of citizens from North and South Carolina assembled upon the occasion, including his Excellency the Governor, and several high official functionaries of the latter State. The Declaration was read by Mr. Osborne, and an oration delivered by Franklin Smith, Esq. The military was in attendance in great numbers, and the whole ceremonies were of the most imposing character. Upwards of six hundred persons sat down to a sumptuous dinner, and at evening there was a splendid ball." Charlotte," says the Journal of that place, "has not seen such a day for sixty years."

NEW ENGLAND ANNIVERSARIES.—The anniversary of the battle of *Lexington* was celebrated on the spot recently, and from the oration of *Edward Everett* on the occasion—a man who, as Johnson said of Goldsmith, "touches nothing that he does not adorn"—we copy a fine account of the battle and its circumstances.

Newburyport, too, has been celebrating her two hundredth anniversary—and with genuine New England feeling.

Mr. Everett's Address at Lexington.

We are glad to set before our readers a portion of this Address, in which the circumstances of the Battle of Lexington are related. The discourse itself yields to none of the former efforts of its author, in eloquence, fullness or research, or adaptation to the occasion.—[Boston Daily Adv.]

On Saturday, the 15th of April, the provincial Congress, then in session at Concord, adjourned to meet again on the 10th of May. It is probable that the intelligence of this event had not reached General Gage in Boston, when, on the same day, he commenced his arrangements for the projected expedition. The grenadiers and light infantry were relieved from their several stations in Boston, and concentrated on the common, under pretence of learning a new military exercise. At midnight following, the boats of the transport ships, which had been previously repaired, were launched and moored under the sterns of the men-of-war in the harbor. Dr. Warren, on his way home from the Congress on Saturday, had expressed to the family of Mr. Clark, his firm persuasion, that the moment was at hand when blood would flow. He justly regarded the military movements of the following night, as a confirmation of this opinion, and despatched Colonel Paul Revere the next day, to this place, to bring the intelligence to Messrs. Hancock and Adams. They naturally inferred from the magnitude of the preparations, that their own seizure could not be the sole object, and advised the committee of safety, then sitting at West Cambridge, to order the distribution into the neighboring towns of the stores collected at Concord. Colonel Paul Revere, on his return to town on Sunday, concerted with his friends in Charlestown that two lights should be shown from the steeple of the North Church, if the British troops should cross in boats to Cambridge, and one, if they should march out over Boston neck.

Wednesday the 19th was fixed upon as the eventful day. Ten or twelve British officers were sent out the day before on horseback, who dined at Cambridge, and at nightfall scattered themselves on the roads to Concord to prevent the communication of intelligence from the town. Early information of this fact was brought to this place by Solomon Brown* of Lexington, who returned late from Boston market on the afternoon of the 18th and passed them and was passed by them several times, as they sometimes rode forward or fell back on the road. A despatch to the same effect was also sent by Mr. Gerry of the committee of safety, at West Cambridge to Mr. Hancock, whose answer, still preserved, evinces the calmness and self-possession, which he maintained at the approaching crisis. In consequence of this information, a guard of eight men, under the late Colonel Monroe, then a sergeant in the Lexington company, was marched in the course of the evening to Mr Clark's house, for the protection of Messrs. Adams and Hancock. At the same time Messrs. Sanderson, Loring,† and Brown, were sent up towards Concord, to watch the movement of the officers. They came upon them unawares in Lincoln, and fell into their hands. About midnight, Col. Paul Revere, who had left Boston by direction of Doctor Warren, as soon as the movements of the troops was discovered, and had passed by the way of Charlestown, where he narrowly escaped two British officers, through Medford, and West Cambridge, giving the alarm at every house on the way—arrived at Mr. Clark's with despatches from Dr. Warren, for Hancock and Adams. Passing on towards Concord, Revere also fell into the hands of the British officers in Lincoln, but not till he had had an opportunity of communicating his errand to young Dr. Prescott, of Concord, whom he overtook on the road. At the moment Revere was arrested by the officers, Prescott succeeded in forcing his way through them, and thus carried the alarm to Concord. The intelligence sent by Dr. Warren to Messrs. Hancock and Adams, purported that a large body of the King's troops, (supposed to be a brigade of 1200 or 1500 men,) had embarked in boats from Boston."

After the detention of an hour or two in Lincoln, the British officers were informed by Col. Revere, of all the measures he had taken to alarm the country; and deemed it expedient for their own safety to hasten back toward Boston. On their way toward Lexington, they put many questions to their prisoners, as to the place where Messrs. Adams and Hancock were residing. As they approached Lexington, the alarm bell was ringing, and a volley was fired by some of the militia, then assembling on the green. Upon this they hastened their flight, and just as they entered the village their prisoners escaped from them. Colonel Revere repaired to the house of Mr. Clark, and the general apprehensions relative to his distinguished guests, having been confirmed by the interrogatories of the British officers, Messrs. Hancock and Adams were persuaded with great difficulty to withdraw from the immediate vicinity of the road. On the return of Colonel Revere to the centre of the village, he met Captain Thaddeus Bowman coming up the road, in full gallop, with the news that the British troops were at hand.

It was at this time, between four and five o'clock in the morning. Three messengers had been sent down the road, to ascertain the approach of the British army. The two first brought no tidings, and the troops were not discovered by the third, Bowman, till they were far advanced into the town. They had been put in motion about seven hours before on Boston Common. They crossed in boats, near the spot where the Court House now stands in East Cambridge; and there took up their march, from eight hundred to one thousand strong, grenadiers, light infantry, and marines. They crossed the marshes, inclining to their right, and came into Charlestown and West Cambridge road, near the foot of Prospect hill. It was a fine moonlight chilly night. No hostile movement was made by them, till they reached West Cambridge. The committee of safety had been in session in that place at Wetherbee's tavern; and three of its distinguished members, Vice President Gerry, Col. Lee, and Col. Orne, had taken up their lodging for the night, at the same house. The village, having been alarmed by Colonel Revere, was on the alert at the approach of the army; and Messrs. Gerry, Lee, and Orne, had risen from their beds and gone to their windows, to contemplate the strange spectacle. As the troops came up, on a line with the house, a sergeant's guard was detached to search it; and the members of the committee had but a moment to escape by flight into the adjacent fields.

It was now perceived by Colonel Smith, who commanded the British detachment, that the country, on all sides, was in a state of alarm. The news had spread in every direction, both by the way of Charlestown and Roxbury. The lights in the North Church steeple had given the signal, before the troops had fairly embarked. It was propagated by the alarm bell, from village to village; vollies from the minute-men were herd in every direction; and as fast as light and sound could travel, the news ran through Massachusetts, I might say though New-England; and every man as he heard it sprang to his arms. As a measure of precaution under these circumstances, Colonel Smith detached six companies of light infantry and marines, to move forward under Major Pitcairne and take possession of the bridges at Concord, in order to cut off the communication with the interior of the country. At the same time also, he sent back to General Gage and asked a reinforcement, a piece of forethought which saved all that was saved of the fortunes of that day. Before these detached companies could reach Lexington, the officers already mentioned were hastening down the road; and falling in with Major Pitcairne, informed him, that five hundred men were assembling on Lexington green to resist the troops. In consequence of this exaggerated account, the advance party was halted, to give time for the grenadiers to come up.

And thus, fellow citizens, having glanced at all the other movements of this memorable night, we are prepared to contemplate that, which gives interest to them all. The company assembled on this spot, and which had been swelled by the British officers to five hundred, consisted in reality of sixty or seventy of the militia of Lexington. On the receipt of the information of the officers and the movement of the troops, a guard had been set, as we have seen, at the house of Mr. Clark, the evening before. After the receipt of the intelligence brought by Revere, the alarm bell was rung; and a summons sent round to the militia of the place, to assemble on the green. This was done by direction of the commander of the company, Capt. John Parker,—an officer of approved firmness and courage. He had probably served in the French war, and gave many proofs, on this trying occasion of a most intrepid spirit. About two o'clock in the morning, the drum beat to arms, the roll was called, and about one hundred and thirty answered to their names;—some of them, alas—whose ashes, now gathered in that depository, invoke the mournful horrors of this day,—for the last time on earth. Messengers were sent down the road to bring intelligence of the troops; and the men were ordered to load with powder and ball. One of the messengers soon returned with the report, that there were no troops to be seen. In consequence of this information, as the night was chilly, in order to spare the men, already harassed by the repeated alarms which had been given, and to relieve the anxiety of their families, the militia were dismissed; but ordered to await the return of the other expresses, sent down to gain a knowledge of the movements of the enemy, and directed to be in readiness, at the beat of the drum. About half the men sought refuge from the chill of the night, in the public house still standing on the edge of the green;—the residue retired to their homes in the neighborhood. One of the messengers was made prisoner by the British, who took effectual precautions to arrest every person on the road.—Benjamin Wellington hastening to the centre of the village, was intercepted by their advanced party, and was the first person seized by the enemy in arms, in the revolutionary war. In consequence of these precautions, the troops remained undiscovered till within a mile and a half of this place, and when there was scarce time for the last messenger, Capt. Thaddeus Bowman, to return with the tidings of their certain approach.

Anew, the last alarm, is now given: the bell rings,—guns are fired in haste on the green,—the drum beats to arms. The militia, within reach of the sound, hasten to obey the call, sixty or seventy in number, and are drawn up in order a very short distance in the rear of the spot on which we stand. The British troops, hearing the American drum, regard it as a challenge, and are halted at the distance of one hundred and sixty rods to load their guns. At the sight of this preparation a few of the militia on the two extremities of the line, naturally feeling the madness of resisting a force outnumbering their own ten to one, and supposed to be near twice as large as it was, showed a disposition to retreat. Captain Parker ordered them to stand their ground, threatening death to any man

* Mr. Brown is still living, but from the distance of his place of residence, was not able to attend, with the other survivors of Captain Parker's company, (ten in number,) at the celebration of the anniversary.

† Mr. Loring was present on the Stage, at the delivery of this address.

who should fly,—but directed them not to fire unless first fired upon. The commanders of the British forces advanced some rods in front of their troops. With mingled threats and oaths, they bid the Americans lay down their arms and disperse, and call to their own troops, now rushing furiously on,—the light infantry on the right of the church in which we are now assembled, and the grenadiers on the left,—to fire. The order not being followed with instant obedience, is renewed with oaths and imprecations,—the officers discharge their pistols—and the foremost platoon fires over the heads of the Americans. Not one falls, and John Munroe, standing next to a kinsman of the same family name, calmly observed, that they were firing nothing but powder. Another general volley, aimed with fatal precision, succeeds. Ebenezer Munroe replied to the remark just made, that something more than powder was then fired, as he was shot himself in the arm. At the same moment, several dropped around them killed and wounded. Captain Parker now felt the necessity of directing his men to disperse, but it was not until several of them had returned the British fire, and some of them more than once, that this handful of brave men were driven from the field.

Of this gallant little company, seven were killed and ten wounded, a quarter part at least of the number drawn up, and a most signal proof of the firmness, with which they stood the British fire.—Willingly would I do justice to the separate merit of each individual of this heroic band; but tradition has not furnished us the means. A few interesting anecdotes have, however, been preserved. Jedediah Munroe was one of the wounded. Not disheartened by this circumstance, instead of quitting the field, he marched with his company in pursuit of the enemy to Concord, and was killed in the afternoon. Ebenezer Munroe, Jr., received two wounds, and a third ball through his garments. William Tidd, the second in command of the company, was pursued by Major Pitcairne, on horseback, up the north road, with repeated cries to stop or he was a dead man. Having leaped the fence, he discharged his gun at his pursuer, and thus compelled him in turn to take flight. Robert Munroe was killed with Parker, Muzzy, and Jonathan Harrington, on or near the line, where the company was formed. Robert Munroe had served in the French wars. He was the standard-bearer of his company at the capture of Louisbourg, in 1758. He now lived to see, set up for the first time, the banner of his country's Independence. He saw it raised amidst the handful of his brave associates; alas, that he was struck down, without living like you, venerable survivors of that momentous day, to behold it, as it dallies with the wind and scorns the sun, blest of heaven and of men,—at the head of the trumphant hosts of America! All hail to the glorious ensign! Courage to the heart and strength to the hand, to which, in all time, it shall be entrusted! May it forever waive in honor, in unsullied glory, and patriotic hope, on the dome of the capitol, on the country's strong holds, on the tented plain, on the wave-rocked top-mast. Wheresoever on the earth's surface, the eye of the American shall behold it, may he have reason to bless it. On whatsoever spot it is planted, there may freedom have a foothold, humanity a brave champion, and religion an altar. Though stained with blood in a righteous cause, may it never in any cause, be stained with shame. Alike, when its gorgeous folds shall wanton in lazy holiday triumph, on the summer breeze, and its tattered fragments be dimly seen through the clouds of war, may it be the joy and pride of the American heart. First raised in the cause of right and liberty, in that cause alone may it forever spread out its streaming blazonry to the battle and the storm. First raised in this humble village, and since borne victoriously across the continent and on every sea, may virtue, and freedom, and peace forever follow, where it leads the way! The banner which was raised, on this spot, by a village hero,* was not that, whose glorious folds are now gathered round the sacred depository of the ashes of his brave companions. He carried the old provincial flag of Massachusetts Bay. As it had once been planted in triumph, on the walls of Louisbourg, Quebec, and Montreal, it was now raised in a New England village, among a band of brave men, some of whom had followed it to victory in distant fields, and now rallied beneath it, in the bosom of their homes, determined, if duty called them, to shed their blood in its defence. May Heaven approve the omen. The ancient standard of Massachusetts Bay was displayed for the confederating colonies, before the STAR-SPANGLED BANNER OF THE UNION had been flung to the breeze. Should the time come (which God avert), when that glorious banner shall be rent in twain, may Massachusetts, who first raised her standard in the cause of United America, be the last by whom that cause is deserted; and as many of her children, who first raised that standard on this spot, fell gloriously in its defence, so may the last son of Massachusetts, to whom it shall be entrusted, not yield it but in the mortal agony!

* Joseph Simonds was the ensign of the Lexington company on the 19th of April, 1775.

[*From the Army and Navy Chronicle.*]

ENGINEER ORDER, NO. 4.

ENGINEER DEPARTMENT,
Washington, 22d May, 1835.

The Chief Engineer has again the melancholy duty of announcing, with deep regret, to the Corps of Engineers the loss of another highly meritorious brother officer, Brevet Major GEORGE BLANEY, who died at Smithville, N. C. on the 15th inst.

As a testimonial of respect for the memory of the deceased, the officers of the Corps of Engineers, and of the Military Academy, are requested to wear the usual badge of mourning for thirty days.

C. GRATIOT.

Capt. J. A. Phillips, 7th Infantry, relieved from his staff appointment as Assistant Commissary of Subsistence, and acting Assistant Quartermaster, at the Military Academy West Point, and ordered to join his company at Fort Gibson, 11th May, 1835.

2d Lt. Edward Deas, 4th Artillery, assigned to duty in the Commissary General's Department.

Lt. W. W. Mather, 7th Infantry, relieved from duty at the Military Academy, after the June examination, and ordered to join his company.

INDIFFERENCE OF THE AMERICAN PEOPLE TO HUMAN LIFE.—We have had repeated occasions to express our conviction, that in this country, the comfort, safety, and life of man, when committed to the charge of steamboats, stage drivers, or builders, seem literally to be deemed of no moment. The most awful accidents, from all these sources, are of frequent occurrence, yet we never hear of any inquiry into the cause of them—or penalty imposed for the negligence, parsimony, or ignorance from which they almost always result. We subjoin two new instances of fearful interest, and venture to predict, that there will be no judicial investigation in either case.

[*From the Wheeling Gazette of the 25th May.*]

ANOTHER STEAMBOAT EXPLOSION—FORTY PERSONS MISSING.—By the arrival at this port this morning of the Steamboat Warsaw, Capt. Keating, we learn the painful intelligence, that the steamboat Majestic, while stopping at Memphis, Tenn., on her way from New Orleans to St. Louis, on Wednesday, the 13th inst., burst her boiler, by which disaster forty persons were either killed or missing. Eight bodies had been found on Thursday morning, when the Warsaw passed. The passengers were principally German emigrants, and there were twenty cabin passengers in addition, from various parts of the Union. We have no other particulars of this melancholy occurrence, though the papers will doubtless furnish them in a day or two.

NEW-ORLEANS, May 15th.—*Awful Catastrophe.*—The three story brick building on the south side of Canal street, and between Camp and Magazine streets, occupied as the Planters' Hotel, and kept by Charles Armstrong, fell to the earth last night at about half past two o'clock. Repairs had lately been making in the lower story, and it is presumed that too much of the support had been incautiously cut away.

The hotel was occupied as an eating and lodging house, and, it is calculated, contained, at the moment of the dreadful accident, between sixty and seventy inmates. The billiard room, which had been very full till late at night, had closed only a short time before. A young gentleman who had left it but a few minutes before the fall of the building, states that he passed to the opposite side of the street, to his boarding house, went on to the gallery in front, where he heard three distinct and loud cracks, resembling the discharge of small cannon, then a sound like an earthquake, as the mass fell, and for a moment after, one, and only one, appalling cry, as if by the united voices of the sufferers! The alarm was directly given to the citizens, the bells rung, and engine companies turned out.

STEAMBOAT MAJESTIC.—There are no authentic accounts yet, of the actual number of sufferers, by the explosion on board this boat. The St. Louis (Mo.) Republican, however, of 25th ult., thus accounts for the occurrence, and states generally the number injured:

The steamboat Majestic arrived at this port last evening from New Orleans. We are sorry to hear that the boat met with a deplorable accident, just as she was leaving Memphis. The Captain had given orders, that the yawl which had been alongside should be taken astern; and while the crew were engaged in this work, the passengers, of whom there was a large number, rushed to the starboard side of the boat.

A short time intervened; the Captain gave orders to "trim the boat," and as soon as it was done the larboard boiler collapsed. *Forty* passengers were more or less scalded; of whom *eight* had died when the Majestic left Memphis, and several others were not expected to survive.

All the cabin passengers escaped unharmed;—the injury was confined to those on deck. The second engineer was also badly scalded.

NEW ORLEANS, May 20.—The diseases annually prevalent on the river Mississippi and its numerous tributaries, are again becoming rife. All the cases of cholera that were said to have occurred in this city were limited to passengers on boats coming down the river, in various parts of which numerous cases are still found. But no cholera exists in New Orleans, except the cholera morbus, common in other places at this period. Cases of bilious fever indeed occurred within the past few days, but not to any extent, nor are they alarming.

The very great negligence of voyagers on our western waters, and the very little care taken of them by the commanders of boats, are sufficient to engender disease. Hence the real source of disease on the Mississippi. We have personally witnssed these causes and effects, and must indignantly give our testimony against this culpable carelessness.

Now the small pox has broken out, and rages from Memphis to Natchez, and thence to Natchitoches.

WHALER LOST.—Capt. Richards, of ship America, arrived at New London from the Pacific ocean on the 20th January last, fell in with, in lat 38 56 S. lon 46 W. the wreck of the Merrimack, Pease master, of Newburyport—had the appearance of being in the water about 50 days.

[*From the Evening Post.*]

WEST POINT, June 1, 1835.

The Board of Visiters appointed by the Honorable the Secretary of War to attend the annual examination of the Cadets at the Military Academy, was organized this day by the appointment of the Hon. Peter V. Daniel, of Virginia, President, and Col. W. C. Lyman, of Georgia, Secretary. Number present:

Rev. J. Coggswell, Connecticut.
Hon. C. G. Ferris, John W. Hunter, Esq. Jno. A. Graham, LL. D., New York.
Gen. W. T. Rogers, Hon. Calvin Blyth, Wm. J. Leiper, Wm. C. Frazer, Esqrs., Phila.
Hon. P. V. Daniel, Col. Heith, Dr. E. H. Carmichael, Virginia.
John Bragg, Esq. North Carolina.
Col. Wm. C. Lyman, Georgia.
Dr. E. S. Davis, South Carolina.
Thos. J. Pew, Joseph Holt, Esqrs., Kentucky.
Gen. Wm. Milroy, Indiana.
Col. P. Martin, Alabama.
Brigadier General Henry Atkinson, of the United States Army.

MEXICO AND THE UNITED STATES.—We learn from an authentic source, that the additional Article to the Treaty of Limits, between the United States and the Republic of Mexico, has been concluded and approved by the General Congress of Mexico, and in virtue thereof, the period within which the respective Commissioners of both nations should meet, and decide on the boundary between the two countries, has been extended to one year from the date of the exchange of the ratifications. —[Jour. of Com.]

A patriot of the Revolution has enclosed $500 to the Editors of the Commercial Advertiser, for the American Colonization Society; remarking, that "at this late period of his life, he cannot serve his country in any manner so beneficially, as in aiding that Society, in their wise and philanthropic endeavors, by degrees, to free the United States from a great and growing evil, and in some measure, to compensate the present generation of black men, for injuries our ancestors have done them and their fathers."

At the latest date, the French Chamber of Deputies was engaged in debate on the abolition of Negro Slavery in the French Colonies. The number of slaves in them is two hundred and seventy-eight thousand. In reply to several of the orators, (April 22d,) the President of the Council (Duke de Broglie) said—

"The moment was critical—that a hazardous experiment was now trying in England, and that in the uncertainty of its result it was the duty of Ministers to be silent; as to act otherwise would endanger the success of the experiment which Government might one day try—he would not say when—he would bind himself to nothing."

AMERICAN TEMPERANCE SOCIETY.—This Society held its anniversary meeting on the 26th instant, in the Park street Church, Boston, before a numerous and highly respectable audience. The following notice of its proceedings, has been furnished for publication in this paper:

"The report, which was partially read by the Rev. Dr. Edwards, the Corresponding Secretary, surpassed, if possible, in interest, any of the previous reports of the society, by the same able hand. One of its great objects is to show, that *alcohol is a poison*, and that too of the most deadly character, and—under whatever name—that it is injurious to the constitution of men in health. The report, in a most satisfactory manner, explodes the common error, that alcohol exists in a state of nature: it shows conclusively, that it does not follow, because fruits and grains are proper for man, that alcohol, which is formed by fermentation, *being a process of decay*, is also proper. The report takes the ground throughout, that it is with intoxicating liquors, under whatever title, that the friends of temperance have now to contend: on this broad and tenable ground, that so long as those drinks are used as a common beverage, there can be no hope of emancipating the world from the sin of drunkenness.

The following are among the remarkable, and certainly very encouraging facts, set forth in this report:

There are State Temperance Societies in every State *but one* of the Union,

There are *eight thousand* local societies,

Four thousand distilleries are represented as having extinguished their fires.

Eight thousand merchants as having abandoned the immoral traffic; and

Twelve hundred American vessels now navigating the ocean without the use of alcohol.

It speaks in high commendation of societies formed in England and this country, on the principle of total abstinence from all that can intoxicate, and from Strong Beer, as having been more injurious in England, than even ardent spirit. After the reading of the report, several able addresses were delivered, all advocating the principle of total and entire abstinence from every kind of intoxicating drink, as a common beverage. Amongst other important resolutions, the following was unanimously adopted:

As it has been proved by the experience of thousands in the United States, of all classes of persons, and in all kinds of lawful business, that abstinence from the use of all kinds of intoxicating liquor, as a drink, is not only safe but salutary, and as this is the only course in which it can be rationally expected, that intemperate persons will ever be permanently reformed, and as the example and kind moral influence of the temperate, is the grand means of leading the intemperate to adopt and pursue a course so essential to their present and future good. Therefore, resolved,

That the more extensively this course is adopted by all classes in the community, and especially by all members of Temperance Societies, the more rapid will be the progress of the Temperance Reformation, and the more certain the prospect that drunkenness and its evils will cease."

In connection with this subject, the following facts derived from an authentic source, will not be deemed uninteresting.

Temperance Items,—connected with the Press.—*The Temperance Recorder*, established a few years since by the New York State Temperance Society, for the purpose of persuading the whole community to abandon the making, vending, and drinking ardent spirit, has perhaps had a patronage beyond that of any paper ever published. Its list of subscribers at one time rose to 200,000, but in consequence of its silence relative to fermented drinks, its patronage fell off, so that at the close of the last year, the number was reduced to about 50,000.—At the last annual meeting of the State Society, it was unanimously resolved that this paper should take higher ground, and urge on all classes the entire abandonment of *all* intoxicating liquors as a beverage. This change in the course of the paper has restored it again to favor, the lists have now risen to 100,000 and over, and a thousand or more subscribers a day is a very common occurrence.

The American Temperance Intelligencer, a large sheet, is now on its second year, 60,000 are required to meet the demand.

Of the American Temperance Almanac, for
1834, 300,000 were circulated.
1835, 160,000, the printer could not furnish any more in time.

The Almanac for 1836 is now in press, and striking off at the rate of 5000 to 6000 per day.—About 600,000 are already ordered.

Messrs. Talbot, Oliphant & Co. of this city, have offered to the Domestic and Foreign Missionary Society of the Protestant Episcopal Church, a free passage to China for their recently appointed Missionaries, the Rev. Messrs. Hanson and Lockwood, in the ship Morrison shortly to sail for Canton.

This is not the first, by many instances, in which the liberality of Commerce has, by these gentlemen, been made to advance the highest interests of civilization and religion. In this particular instance, it is marked with the most catholic spirit, for these gentlemen do not belong to the Episcopal Church.

A PARENT'S LOVE.—It is sometimes deemed by the cold-hearted, a mere rhapsody, to say of a parent's love, that it is stronger than death. In the affecting incident, however, related in the annexed paragraph, cut from the Bath (Steuben Co.) Advocate, the whole truth of that sentiment is most abundantly verified. "I cannot see him perish" are words that will find an echo in the heart of every parent, and sympathy in the bosom of all, who do not degrade the name and nature of man.

[*From the Bath Advocate of 27th May.*]

DISTRESSING INCIDENT.—Mr. Aaron Sisum, with his family, consisting of a wife and five children, on their way from Cherry Valley, Otsego co. to Allegany co. took passage on a boat on the Crooked Lake to Hammondsport, on the 20th instant.—While passing up the Lake, a little son, aged five years, accidentally fell overboard. After a moment's pause, the father exclaimed, "I cannot see him perish," and immediately plunged in after him. The sails were lowered, but it was impossible to check the progress of the boat in time to save them, and both immediately sunk—leaving an afflicted widow and remaining children in a land of strangers destitute of all means of support, except from the hand of charity. Mr. S. had in his pocket all the money they possessed.

With praiseworthy effort and liberality the citizens of Hammondsport afforded sufficient means to make them comfortable.

The Annapolis Republican of Saturday has the following additional particulars of the interesting incident which occurred in the harbor of that city last week:—

A party of pleasure, including the family of Col. Walbach, Commandant of Fort Severn, embarked on Monday last, and after spending a delightful day upon the water, rambling over the beautiful green banks of the Severn, and partaking of a repast upon the shores of the Round Bay, the schooner was returning with the party in the evening, when a sudden flaw of wind struck her—the main boom jibed, and carried one of the young ladies overboard. Quick as thought, Lieut. J. J. B. Walbach, of the United States Navy, plunged into the river to save her. The spring by which he designed to throw himself as near as possible to her, owing to a sudden careen of the vessel, was the means of plunging him to a great depth. When he rose, the object of his anxiety was no longer to be seen. Nearing the spot, however, she was discerned sinking below the waves. On being brought up, she very naturally clung to the only object within reach, for safety, but unfortunately in such a manner as to deprive him of the power of motion, necessary to keep above water. In a short time, both sunk together.

Rallying his strength, with an effort, he rose again with his fair charge, and not only sustained her long enough for her to breathe afresh, but with the utmost presence of mind, made dispositions to keepafloat; but entangled with clothes, and disabled from motion, his buoyance soon, of course, became exhausted, and both again disappeared.

It occurred to Lieut. W. as he sunk, to endeavor to reach the bottom, in order to obtain an impetus for re-ascending, but the depth was found too great, there was 24 feet water. It was probably with the last remains of strength that another exertion enabled him once more to regain the surface with his fair companion. But they soon sunk again. His brother, Lieut. Augustus B. Walbach, of the United States Army, who had been at the head of the boat when the accident occurred, on perceiving those overboard, springing into the river, reached the parties at this critical moment. In the act of bringing them up to the surface, the young lady insensibly placed her hand upon his head, so as effectually to keep him under water. In this position, however, he retained his presence of mind, and by swimming under water with his brother's hand upon his shoulder, contrived to sustain both for a considerable time, and to them all, a most eventful space.

All three however, became exhausted, and had sunk a full arm's length when the captain of the schooner, having succeeded in rounding his boat to, and launching a small crazy *punt* from her deck, arrived just in time to reach one of the party, and thereby bringing them all up to the surface—The first breath of returning life in the young Naval Officer, was to sing out a direction to the raw hands thus left to manage the schooner, and which was now at considerable distance to '*haul that jib to windward, and put down the helm.*' One of the officers laying hold of the little boat on one side, and the other on the other, they contrived to steady it so that the Captain could draw the lady on board without capsizing it—and in that posture they were paddled to the schooner and received on board.

[*From the Western Carolinian.*]

DREADFUL TORNADO.—We learn that a very destructive tornado passed over a part of this county on Saturday, the 9th May, near the section known as the Jersey Settlement. It prostrated every thing before it, not a house, tree, or fence was left standing where it passed. The destruction of property was very great; but the most melancholy circumstance was the death of a respectable young lady, whose name be believe, was Jones. She was standing in the corner of the house when it tumbled down and crushed her to death; when she was found, after the storm subsided, her head was severed from her body! We have not learned the extent of the tornado, but it embraced in width about a quarter of a mile.

[*From the National Gazette.*]

A letter has been received, per ship Liberty, from H. Piddington, Esq. Foreign Secretary of the Asiatic Horticultural and Agricultural Society, dated Calcutta, Dec. 24, 1834, and addressed to Dr. R. Harlan, announcing the following interesting discovery—

"You will learn, too, with pleasure, I doubt not, the splendid discovery of a country on the N. E. frontier, or the N. E. corner of Ass-am, in which, through forests of thirty days march the true Tea Plant abounds. This province, too, boarders on that of Yumar in China, in which the plant is cultivated for consumption and sale. We have also had the flower and fruit sent down to Dr. Wallach, of the Honorable Company's Botanic Garden, who pronounces it to be the true tea plant; and who is, as you may well suppose, much gratified with the discovery. These facts are contained in a letter which I have just received from Dr. W. This discovery will perhaps cause a great revolution in the tea trade in a few years."

Was Mr. *Rives*, the founder of the French monarchy after the 3 days revolution? This question will not appear wholly without purpose, when the annexed paragraph from the London Times, is considered, and when it is known, that the substance of what is therein stated, has been frequently before alluded to.

Will not Mr. *Rives*, think it worth his while to give some explanation of his imputed agency in this matter?

[*From the London Times.*]

PARIS, April 18.—Among all the fabrications retailed in the Chamber and the newspapers on the subject of the American claims, and the treaty which reduced them to the form of a liquid obligation, it is a matter of surprise, especially to the members of the diplomatic body, with whom the fact is familiar, that neither deputies nor journalists have laid their hands on an anecdote, which would have thrown more light on the chief point at issue, than all that has resulted from a fortnight's incessant debate. During the first days of the revolution, when the future King of the French was still at Neuilly, and Lafayette was hesitating at the Hotel de Ville between the proclamation of the republic, and the institutions of a monarchy surrounded by republican institutions, the Duke of Orleans sent across the barricades, to ask an interview of Mr. Rives, the American Minister, who, like most of the diplomatic servants of the United States, is known to have entertained opinions on the subject of government, having a decided leaning towards aristocratical and monarchical forms. The object of his Royal Highness was to induce Mr. Rives to go to the Hotel de Ville, and convey to Lafayette the effect of his own conviction on the all important question which was then under deliberation. The American Minister consented, and during his subsequent stay in Paris, as perhaps now at Washington, he delighted to recount the part he played at this crisis of the revolution, putting especial emphasis on the cordiality with which he was received by the venerable old man, who for the moment held the destinies of France in his hands, because in the representative of the American Republic, Lafayette thought he saw the personification of that pure form of government with which he desired that his country might be endowed. Suffice it to say, that the mission proved successful, that Lafayette allowed himself to be convinced, and that Mr. Rives knew how to exact from the King and his Ministers the price of that intervention, which had contributed so essentially to smooth his path to the throne.

For late papers from the Island of Jamaica, (Kingston dates of the 15th ult.) we are indebted to Mr. *Gilpin* of the Exchange reading rooms—in which, by the bye, we may say *en passant*, merchants, strangers, and others, will find every accommodation usually looked for in such a place.

The Governor of Jamaica, Lord Sligo, has just returned from the *Caymanas*, where he had been to announce to the proprietors that by reason of their slaves not having been registered within the time prescribed by the emancipation act of the British Parliament, they had become unconditionally free. The error or omission was the fault of Parliament, and not of the proprietoas, and yet the latter bear the loss. They submitted at once to the decision, reserving to themselves the right of appealing to Parliament for an indemnity for the loss which they thus sustain, while the planters of Jamaica and other Islands, are permitted to require *apprentice labor* from their former slaves.

Jamaica was quite tranquil; but it seems to be feared in some neighborhoods that the apprentice system will not enable the planters to keep up any thing like their former supply of sugar. About the coffee plantations less solicitude is expressed; indeed, it is avowed, that the coffee may be cultivated without difficulty by European emigrants.

FEARFUL EARTHQUAKE.—The New Bedford Mercury of yesterday contains the following account of the effects a most fearful Earthquake, in Chili, on the 20th Feb. last.

LATE FROM CHILI.—*Destruction of the city of Conception and Talcahuana, by an Earthquake.*—We learn by Capt. Whitton, of the ship Coral, at this port, 85 days from Talcahuana, the melancholy inteilgolnce of the entire destruction of the city of Conception and Talcahuana by an Earthquake on the 20th February. The following statement was drawn up by a gentleman who was an eye witness:—

"The morning of the 20th was clear and serene, but it will prove an ever memorable day to the miserable people now inhabiting the border hills in this vicinity The first shock commenced at 20 minutes past eleven o'clock, and lasted with but slight intermission for 47 minutes; causing the hills and valleys to rise and fall like the waves of the ocean. During the continuance of the first shock, which was much the most severe, I expected to be destroyed every moment—it was almost impossible to keep upright.

Talcahuana is completely demolished—the buildings were not only shaken down, but the ruins of houses, stores, &c. were completely swept away afterwards by the sea, which retired about 15 minutes after the first shock, leaving the shipping entirely dry, at anchor in the harbor—it came in again in about two minutes, to the height of 25 feet above the usual mark, overwhelming the whole place. Men, women, and children fled for the mountains, but many were overtaken and swept to the ocean, by the receding waves, which completed the entire destruction of the town, depriving hundreds of people of their second garments—many who were in good circumstances are now completely destitute. Furniture of all kinds was carried away with the houses; not even leaving a vestige to inform the owner of the situation of his former residence. It would require an eye witness to be made acquainted with the complete destruction of the town by this awful calamity.

Conception, a city containing about 25,000 inhabitants, is one complete heap of ruins; the houses being built chiefly of brick. *There is not one solitary building left standing within the limits of the city, and for leagues round.* The shock came from a southeast direction, and in its way destroyed every thing. A number of small towns have been heard from—Chilian, Salea, Armadean, Lingus, Envas, Peusul, St. Carlos, Vallaya, and Armyles, were destroyed.

The number of lives lost could not be correctly ascertained. A new cathedral building in Conception, buried twenty workmen in its ruins. There were but two American ships in the harbor of Talcahuana at the time, besides the Coral—the Milton and the Nile. A small schooner was driven from her anchoring and drifted over the town."

Chili has been subject to earthquakes ever since its settlement by the Spaniards. The city of Conception was originally built three leagues to the north of its present site, but having been twice destroyed by earthquakes, the inhabitants removed to the south and built the city on its present location. Conception is represented by those who have visited it as a delightful place—the inhabitants high minded, and honest in all the relations of life. A number of Americans, principally mechanics, have located themselves in the city. Talcahuanha, situated in lat. 36 42 N., lon. 83 06 E., being the port of Conception, and a place of considerable business. It has been the general resort of American whale ships for several years past—the harbor being one of the best on the coast. The town is situated almost on a level with the sea, large hills rising in the rear. The inhabitants, when the Coral left, were in a most deplorable situation.—Captain Paul Delano, who is known to many of our citizens, and to every one who he visited Talcahuana, has lost his little property, and was compelled to take shelter on board the shipping—his beautiful residence, the home of our countrymen, whether in prosperity or adversity, is completely swept away, and himself and lady narrowly escaped with their lives. No individual, not holding an official station from our government, ever rendered more substantial benefit to his countrymen than Captain Delano. Many of the perplexing and useless revenue laws of the country have been repealed through his instrumentality. Mr. Andros, an honest and honorable gentleman, who has done the supplying agency business of late years, for whale ships, lost all his property.—

The view from the shipping in the harbor during the different shocks, is represented by an eye witness as awfully grand and terrific. The unusual trembling and agitation of the ship—the convulsions and heavings of the mountains and plains, as far as the eye could extend—the sight at a distance of the inhabitants, fleeing, they knew not whither, for safety—the violent rushing of the waters over the ruins of a thickly populated town, sweeping the wrecks of the demolished habitations of the rich and poor, into one common chaos of ruin, was calculated to impress deeply the mind of the beholder.

VOLCANOES.—Several weeks previous to the first shock of the late destructive earthquake at Conception, two large volcanoes burst out on the southern ridges of the range of mountains known by the name of the "Cordilleras," and at the last accounts continued to emit large volumes of smoke and lava to the terror of the inhabitants of the neighboring provinces.

We yesterday perused a letter feom Captain Paul Delano, dated Talcahuana, giving the particulars of the destruction of that place. We find no facts of importance in addition to those published yesterday. The destruction of towns and villages extended sixty miles in the interior.—[New Bedford Mercury, of yesterday.]

Brig Panope, Doane, reports that the American Consul, THOS. WOOLDRIDGE, Esq. died suddenly at Matagorda, on the evening of the 24th April, of apoplexy. He had been on duty but a short time.

BALOON ASCENSION.—Mr. Zebulon Mitchell happily effected his ascent yesterday, from the Old Council Chamber Hill, according to agreement.—The day was uncommonly fine for the experiment, and a very respectable number of citizens assembled to "encourage and patronize the sciences, witness the interesting process of generating hydrogen gas, and obtain a knowledge of chemistry."—Mr. Mitchell had advertised to take his station in the car at 4 o'clock. Some ten or fifteen minutes after that time having elapsed, without exhibiting him to the non-paying customers outside of "the Amphitheatre," who cared nought for chemistry, and came merely to see the sight, they began to grow restive, and judging, perhaps, from the gaunt appearance of the baloon, that there was to be a failure they proceeded albeit, very peaceably, to pull down some twenty yards of the fence which obstructed their view. This disclosed the car already occupied by the Æronaut, who to satisfy them that all was right, directed those who held the cables to proceed through the breach. Having floated in this manner to some distance along the verge of the hill, he cut loose and ascended, doffing his hat, waving his flag, and scattering h s verses in the approved style on such occasions. The breeze carried him in an easterly direction—in which he was proceeding when we last saw him.—Every thing was favorable for an ascent to a great height, except that the ærostat was not sufficiently inflated.—[Rich. Whig.]

[*From the Boston Courier of yesterday.*]

MR. LAURIAT'S BALLOON *went off* yesterday afternoon,—but he did not go with it, wisely preferring, no doubt, to remain on terra firma among his fellow-mortals, to contending with the powers of the air. We are not able to state what was done in the amphitheatre, where there seemed to be an immense crowd; we only made one of thirty or forty thousand spectators who watched the progress of the balloon after it rose above the enclosure.—Judging from the appearance, it was not more than half inflated.

[*From the Salem Gazette.*]

Aerostation.—Balloon mad, as this generation is, the aerostats of the present day tax our credulity less than those of a past generation. In 1796, citizen Campenas, a French hydraulic Engineer, wrote a long letter to Napoleon Bonaparte, then General in Chief of the army of Italy, from which we extract a paragraph or two. By the letter of Campenas, it appears that his plan had been examined by a Committee of the National Institute, who testified their approbation in a long report, extracts from which accompany the letter:—

Citizen General—

The artist who addresses you, filled with the most lively gratitude, will erect, if the means of execution be afforded him, a vast edifice, whence, at the conclusion of his labors there will issue an Aerial Vessel capable of carrying up with you more than 200 persons, and which may be directed to any point of the compass. I myself will be your pilot. You can thus, without any danger, hover above the fleets of enemies jealous of our happiness, and thunder against them like a new Jupiter, merely by throwing perpendicularly downwards firebrands made of a substance which will kindle only by the contact and percussion at the end of its fall, but which it will be impossible to extinguish.

Or perhaps you may think it more prudent to begin at once by forcing the British cabinet to capitulate, which you may easily do, as you will have it in your power to set fire to the city of London, or to any of the maritime towns of England. From the calculations I have made, I am convinced that with this machine you may go from Paris to London, and return back again to Paris in twenty-four hours, without descending.

The object I propose is to establish in the great ocean of the atmosphere a general navigation, infinitely more certain and more advantageous than maritime navigation, which has ever disturbed the tranquillity of mankind—to restore the perfect liberty of commerce, and to give peace and happiness to all the nations of the universe, and unite them as one family. By great labor I have surmounted the multiplied obstacles which presented themselves before me; and my progressive discoveries are developed in a work which I have prepared, consisting of about 400 pages, and divided into five parts.
